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A METHOD FOR FINDING COMMON ATTRIBUTES IN HETROGENOUS DOD DATABASES

by

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June 2004

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13. ABSTRACT *(maximum 200 words)*

Traditional database development has been done for a specific, self-contained purpose with no plan to share or merge the data with other databases in the future. As these systems have matured, users have realized a requirement exists to share their data.

Finding common attributes among databases is a time consuming task. However, it is one that is necessary as more and more corporations and agencies consolidate operations. In terms of DoD, the requirement to consolidate systems has come about, as the various data systems used by DoD agencies and our allies need to communicate with each other for a well-coordinated operation. One alternative for achieving the desired interconnectivity is to specify the requirement for interoperability in new systems. A more practical, less costly process is to merge existing systems and consolidate the common components. This paper proposes a process for consolidating portions of data dictionaries of two existing databases. The proposed method uses commercial-off-the-shelf software in finding common attributes between multiple databases and represents an improvement in accuracy and time over previous methods.

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A METHOD FOR FINDING COMMON ATTRIBUTES IN HETROGENOUS DOD DATABASES

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ABSTRACT

Traditional database development has been done for a specific, self-contained purpose with no plan to share or merge the data with other databases in the future. As these systems have matured, users have realized a requirement exists to share their data.

Finding common attributes among databases is a time consuming task. However, it is one that is necessary as more and more corporations and agencies consolidate operations. In terms of DoD, the requirement to consolidate systems has come about, as the various data systems used by DoD agencies and our allies need to communicate with each other for a well-coordinated operation. One alternative for achieving the desired interconnectivity is to specify the requirement for interoperability in new systems. A more practical, less costly process is to merge existing systems and consolidate the common components. This paper proposes a process for consolidating portions of data dictionaries of two existing databases. The proposed method uses commercial-off-the-shelf software in finding common attributes between multiple databases and represents an improvement in accuracy and time over previous methods.

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I.   INTRODUCTION AND PROBLEM BACKGROUND

The Joint Battle Center (JBC) is a Department of Defense (DoD) organization that is instrumental in finding key future technologies that can assist the Joint Task Force (JTF) in enhancing interoperability. JBC is evaluating the Extensible Markup Language (XML) as a technology that may be able to support their goal.

JBC is evaluating techniques to integrate Command, Control, Communications, and Intelligence (C3I) systems amongst our armed services as well as some of our allies. Consequently, the Naval Postgraduate School (NPS) was asked to help find methodologies to assist them in integrating views amongst the following C3I database systems through the use of XML.

- Joint Common Database [JCDB]
- Global Command and Control System – Intelligence Shared and Data Service [GCCS-ISDS]
- Global Command and Control System-Technical-Database Management [GCCS-TDBM]
- Army Field Artillery Tactical Data System [AFATDS])

The JCDB is a database developed by the Army whose aim is to merge all other Army databases with the Army's common tactical picture (CTP). GCCS-ISDS is a system originally developed for the Navy to enhance the operational commander's situation awareness.   GCCS-ISDS provides a standard set of integrated tools and services, which give ready access to imagery and intelligence directly from the operational display. GCCS-TDBM is a flat-file database system developed for the Navy. Each of these systems is an example of a legacy system where data sharing is becoming a necessity. NPS was asked to evaluate each of the database systems to see how XML might be used to support interoperability among them.

Due to difficulties in obtaining sufficient information on all of the databases, we limited our evaluation to the Modernized Integrated Database (MIDB) and JCDB. MIDB

is a subset of GCCS-ISDS. This paper specifically looks at methods for finding common attributes amongst the databases we were provided by JBC.

For our analysis we were given the data dictionaries of both JCDB and MIDB. An entity relation (ER) diagram file was also provided for the JCDB. The entire JCDB database had 120 ER diagrams. We were unable to obtain a similar ER diagram file for the MIDB. Raw MIDB table data for manually creating ER diagrams was provided; however, we determined the process would take too long for us to complete in the allotted time. Sample Data dictionaries for JCDB and MIDB are shown in Figures 1A and 1B. A sample ER diagram for JCDB is shown in Figure 2.

ATTRIBUTE NAME	PHYSICAL NAME	DEFINITION	DATA TYPE	NULL OPTION
ADDRESS postal code	POSTAL _CODE	The assigned "zip-code" for a specific POSTAL-ADDRESS	varchar(30)	NULL

Figure 1A.   JCDB Data Dictionary

Figure 1B.   MIDB Data Dictionary
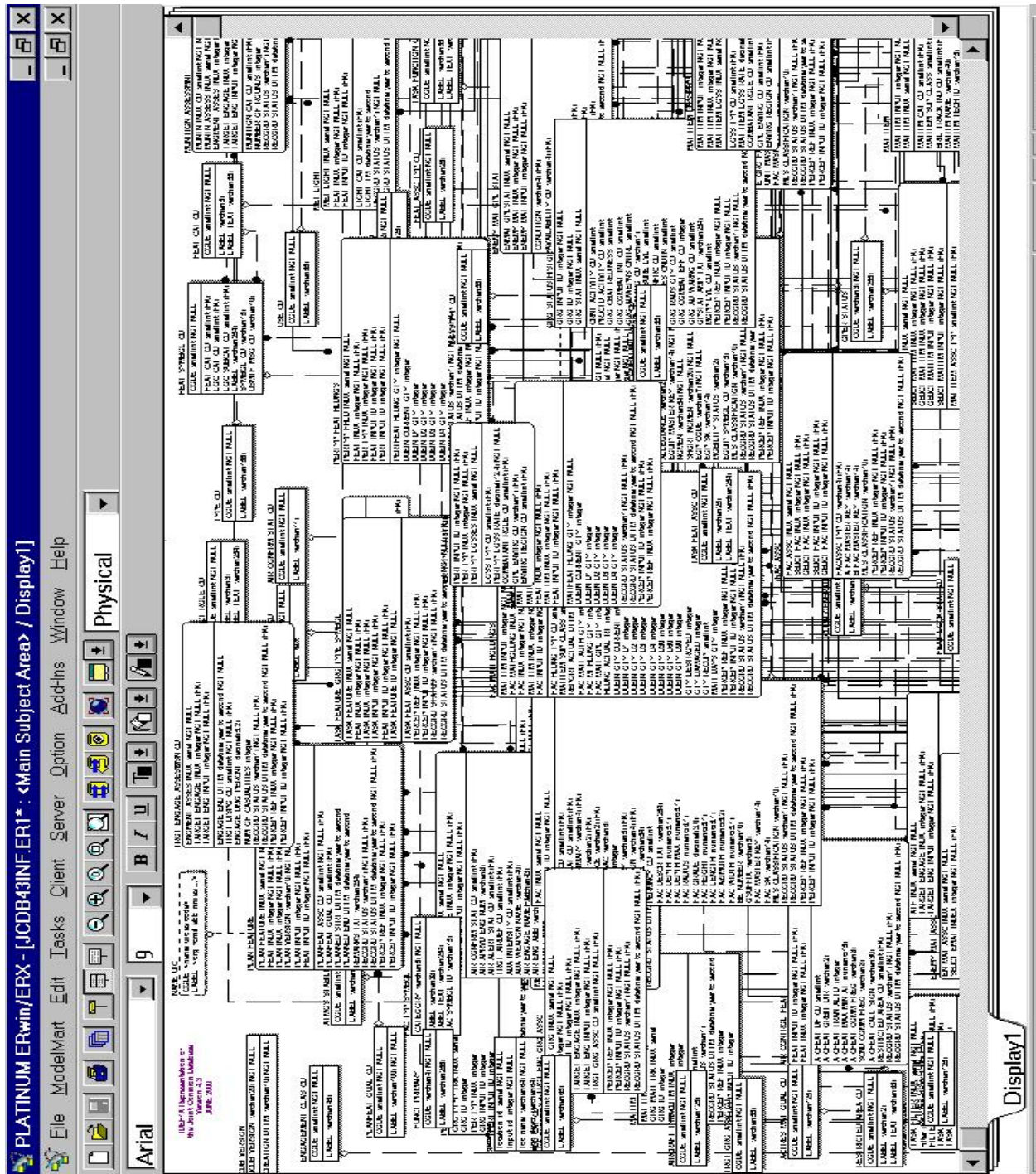
Figure 2.   Sample Entity Relation Diagram of JCDB.

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While there are multiple papers and techniques on developing new databases that incorporate requirements from heterogeneous databases, there are few published papers on merging existing databases. Two papers or techniques we found were DELTA [BFHW95] and SEMINT [LC94]. The DELTA approach relies on commercial text retrieval software to find matches whereas SEMINT uses statistics, data type values and neural networks to find matches. These approaches were evaluated on two actual databases that we were tasked to evaluate, with the goal of recommending a set of corresponding attributes from two specified databases. As a result of the evaluation we recommend tailoring the DELTA and SEMINT techniques for the specified databases. Analysis of the specified databases was conducted at the data dictionary level.

The remainder of this paper is organized as follows. In section two we give an overview of some basic information retrieval terminology and the three integration processes we evaluated. In section three we discuss the hybrid process we choose to use for our analysis. Section four discusses the results of our investigation. Section five has our recommendation for future data integration efforts. The actual data results from our investigation can be found in Appendices A and B.

II.   SEARCH ALTERNATIVES

A.   RESEARCH

A review of the literature concerened with the combination or consolidation of different databases revealed several papers that provided detailed processes for finding commonalties amongst multiple databases or documents. The processes involve some fundamental information retrieval techniques. In order to best explain the processes I will first discuss the basic terminology and techniques used in information retrieval.

B.   SEARCH TYPES

There are several tools available to assist in information retrieval that can greatly decrease time to find the information one is looking for. What follows is a brief discussion of the search tools and methods to measure the effectiveness of the matching process.

1.   Boolean Logic

Searching with Boolean Logic involves constructing search queries using keywords and logic operators such as AND, OR and NOT. Such searches result in finding matches that contain one or more words that are specified in the user query. Some examples of Boolean queries are (AIR FORCE AND NAVY), (AIRPLANE OR AIRCRAFT), and (CODE AND (NOT ZIP CODE)). When conducting a Boolean query it is good practice to start out with a broad search and gradually narrow the search to more specific topics. This can help prevent overlooking matching sets. Key words can be combined in different subsets to broaden or narrow the search. Boolean queries can be precise; however, one must have a good understanding of the data being evaluated and the query must be formed carefully, taking into consideration homonyms and synonyms.

2.   Vector Space Model

A Vector Space Model is a representation of documents and queries in the form of vectors. The features of these vectors are usually words in the document or query, after stemming and removing stop words. A discussion on stemming and stop words

follows in section III.B.5 and III.B.6, respectively. The vectors are weighted to give emphasis to terms that exemplify meaning, and are useful in retrieval. In the retrieval process, the query vector is compared to each document vector. Those that are closest to the query are considered similar, and are returned as matches.

3. Natural Language

A natural language query is one that is expressed using normal conversational syntax; that is, you phrase your query as if making a spoken or written request to another person. There are no syntax rules or conventions for you to learn. In a natural language query the search engine typically looks for all words within a search request. This process gives results based on an automatic term-weighing algorithm in the search engine. Natural language queries generally find more relevant information in less time than traditional Boolean queries.

4. Fuzzy and Phonic Search

Fuzzy and phonic search techniques search for words that match one or two deviations in letters away from the query. An example fuzzy search would be able to find misspelled term "aircaft" when the query was actually for *aircraft.* Fuzzy search engines typically come with a feature that lets you control the amount of deviation so words such as "artcraft" would also match in the example above if the amount of deviation were increased. Fuzzy search can be useful for misspelled words or in the case when words are abbreviated.

Phonic search has the capability to find words that sound the same but are spelled differently. For example, a phonic search can find "two" and "to" or "color" and "colour." A boolean search would not be able to find data for "colour" if the query string used was "color".

5. Stemming

This process typically removes prefixes and suffixes from words in a document or query in the formation of terms in the system's internal model. This is done to group words that have the same conceptual meaning, such as *Observe, Observation, Observing, and Observer.* Hence, the user does not have to be so specific in a query. In general,

one must be careful when using the stemming functions because a search on *Aids* the disease could also find multiple hits on the topic *Finanacial Aid.* Some search engines let users modify/create stemming rules based on common prefixes and suffixes found in their data. Stemming and proximity search techniques are also used to increase the likeliness of finding a match. These methods when used in Boolean, vector space and natural language searches can enhance likelihood of finding appropriate matches.

6. Stopwords

Stopwords are words such as a preposition or article that have little semantic content. Typically, search engines do not index stopwords. Stopword filters can also filter out words that have a high frequency in a document. Since stopwords appear in many documents, and are thus not helpful for retrieval, these terms are usually removed from the internal model of a search engine of a document or query. Some search engines have a predetermined list of stopwords. However, stopwords could depend on context. The word COMPUTER would probably be a stopword in a collection of computer science journal articles, but not in a collection of articles from Consumer Reports. Depending on how a database data dictionary is organized, words such as type and tables could be considered stopwords unless the stop word filter has been specifically turned off for these words.

7. Weighting

Weighting refers to the process of giving more emphasis to the parameters for an important term. In a vector space model, this is applied to the features of each vector.

8. Cluster or Basic Concept Area (BCA)

A cluster is a grouping of representations of similar items. In a vector space model, one can perform retrieval by comparing a query vector with the centroids of clusters. One can continue search in those clusters that are in this way most promising. Several programs have been developed to automatically cluster data into groups using clustering algorithms and formulas.

9.   Query/Query Expansion

A query is a string of words that characterizes the information that the user seeks. A query expansion is any process, which builds a new query from an old one. It could be created by adding terms from other documents, or by adding synonyms of terms in the query (as found in a thesaurus).

10.   Case Sensitivity

Case sensistivity allows a query to ignore the difference between upper and lower case letters in a document or database.

11.   Precision

Precision is a standard measure of information retrieval performance. Precision is defined as the number of relevant documents retrieved divided by the total number of documents retrieved. For example, suppose there are 80 documents relevant to widgets in a collection. System X returns 60 documents, 40 of which are about widgets. Then X's precision is 40/60 = 67%.

12.   Recall

Recall is a standard measure of information retrieval performance. Recall is defined as the number of relevant documents retrieved divided by the total number of relevant documents in the collection. For example, suppose there are 80 documents relevant to widgets in the collection. System X returns 60 documents, 40 of which are about widgets. Then X's recall is 40/80 = 50%.

13.   Similarity

Similarity is the measure of how alike two documents are, or how alike a document and a query are. In a vector space model, this is usually interpreted as how close their corresponding vector representations are to each other.

C.   DATABASE CONSOLIDATION PROCESSES

In our review of the literature concerened with the combination of consolidation of different databases, we reviewed three methods for finding common components. Each approach used a different strategy for finding matches. Stierna [Sti00] and DELTA

[BFHW95] approaches rely on various combinations of query methods such as keyword, Boolean, stop-words, case sensitivity and stemming to find common terms between two documents; SEMINT [LC00] relies on the common structure of the data fields of data attributes.

1. Stierna Process

Stierna [Sti00] was asked to find common requirements between two requirement documents. He used a manual matching process based on guidance received by the combat developers at United States Army Electronics Command (AEC) to establish initial pairs of matched requirements. He then used the insights gained in that process to develop a tool to partially automate the process. Stierna's Java-based tool extracted matching requirements systematically for an analyst with experience in the domain to review. Stierna's tool incorporated a stop-word technique to filter out common words that he did not want evaluated. Stierna also added stemming and case sensitivity to his tool to identify all forms of keywords in the documents being evaluated. His tool matched words between pairs of requirements and calculated a similarity rating based on word statistics. Stierna concluded he was able to reduce search time for finding matching requirements between two documents by 70% over a manual process by incorporating de-stemming, stop-words and case sensitivity in his automated tool. Final evaluation of the matched requirements based on Stierna's process was left up to domain experts to evaluate.

2. DELTA Process

DELTA authors were asked to find common attributes between different databases. In the DELTA process (see Figure 3), one first converts each of the database dictionaries into a common format. After conversion to a common format the data is then grouped into clusters. Grouping the data into cluster areas or "Basic Concept Areas" (BCA) breaks the task of finding common attributes into smaller more manageable tasks. A text search engine is then used to find matches for each attribute within a cluster.
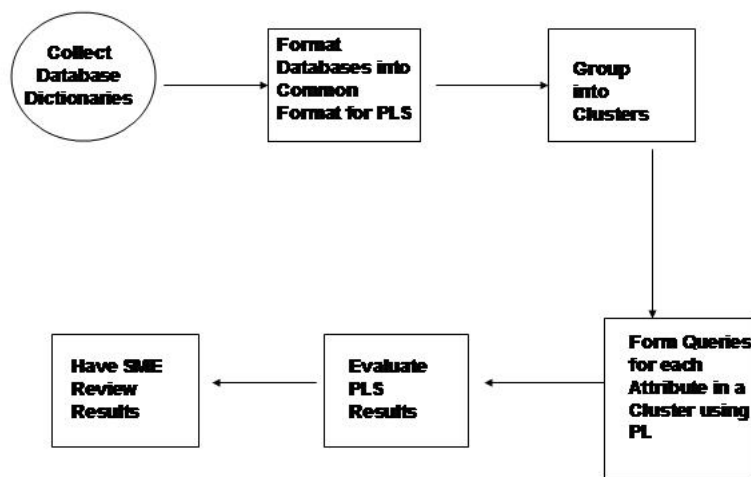
Figure 3.   Outline of Delta Process

The commercial text searching software that DELTA uses is called Personal Librarian or PL. PL is available free via the Internet at www.pls.com/freesw.htm 12/00. PL can find common matches in a number of ways. These ways include Boolean logic, natural language, fuzzy searches, and adjacent searches.   The search engine uses frequency of occurrence of terms within the query to find common matches.   The adjacent feature in PL lets you find terms such as postal and code only when they are adjacent to each other. If a non-adjacent Boolean search was done on "postal" and "code" you would find postal code but it would also find all other instances where each term appears in separate sentences or paragraphs within a document and has no relevance to a postal code. The adjacent feature lets you eliminate cases where two terms are not next to each other.

With DELTA one loads the individual database attributes dictionaries separately after some minor reformatting into PL software. Once it is loaded in PL, a user can conduct a search for each attribute in one database with similar attributes in the other database. A nice feature of PL is that it ranks its query results (see Figure 4). Ranking is

based on number of matches of keywords. Typically, a match, if one exists, can be found in the first 5-6 ranked matches by PL. Once the top matches are found, an analyst enters the matches into a spreadsheet with all the other matches. Matches are kept together in BCAs or cluster groups. Once all the database attributes have been evaluated, they are then analyzed in terms of their tables and entity relationship diagrams and a domain model is developed.
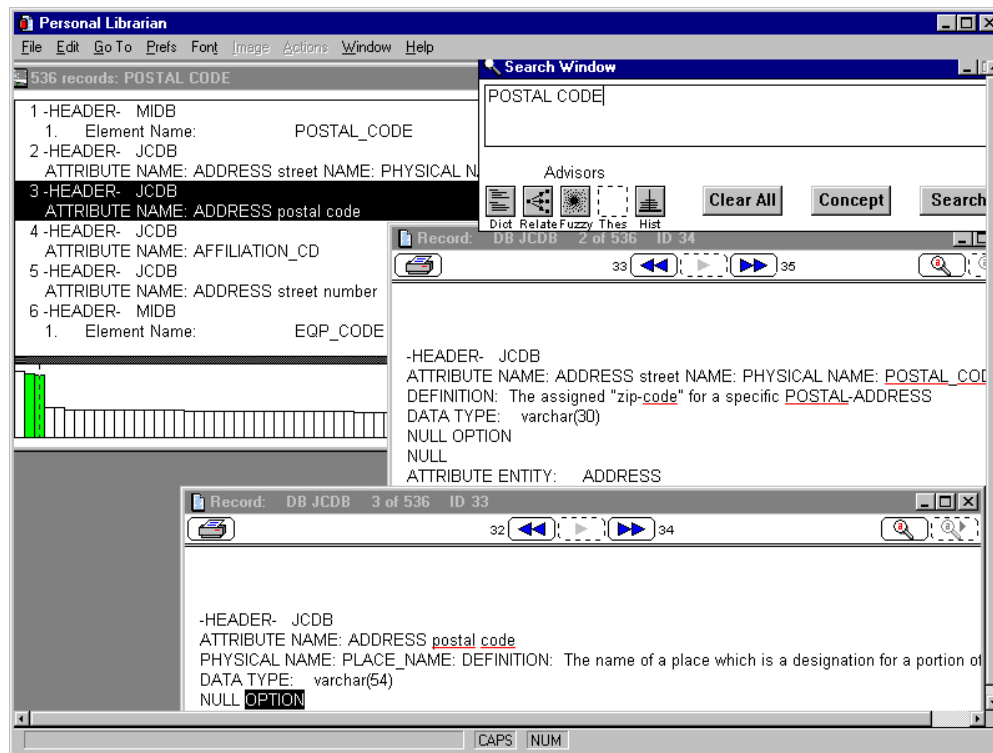

Figure 4.   Search Results in PL are Ranked in Terms of Relevancy to Search Query

a.   DELTA Efficiency

The DELTA process was used on two Air Force databases. The process resulted in finding four matches per hour on the Air Force databases. According to DELTA's authors there are several factors that need to be considered when evaluating attributes and the attribute matching process. The test databases used in DELTA were both Air Force databases. The database developers and integrators for each of the Air

Force databases were knowledgeable about the database they represented. However, when they compared their database's attribute against attribute matches from the other Air Force database they had to investigate the attribute from the other database in more detail to insure they had a good match.

3.   SEMINT Process

SEMINT [LC94] is an automated process developed for matching database attributes by a team from Northwestern University.   In SEMINT, parsers are used to extract attribute information into a standard format from a database. This is done by creating vectors associated with the physical characteristics of each attributes data (see Figure 5 and Table A for a hypothetical vector for an attribute). Characteristics such as number of characters, null values, amount of white space, keys, number of characters in attribute name, etc. are used as elements of a vector.   Once the vectors are created, an automated classifier is used to group vectors into clusters. The clusters are then used to train a neural network using techniques such as back propagation to recognize categories of attributes. Once a neural network is established, the network is used to find attribute matches in a database. Figure 6 shows an outline of the SEMINT process. The entire SEMINT process is automated and does not require prior domain knowledge to find matches.   Domain experts are required to validate the matches SEMINT outputs.

```
HEADER-JCDB
ATTRIBUTE NAME: AIRCRAFT-TYPE subcategory code
PHYSICAL NAME: ACRFT_SUBCAT_CD
DEFINITION: The code that denotes the subclass of an AIRCRAFT-TYPE.
DATA TYPE: smallint
NULL OPTION: NULL
ATTRIBUTE ENTITY: AIRCRAFT-TYPE
```

Figure 5.   Sample definition of attribute "AIRCRAFT-TYPE Subcategory Code."

Table A.　　　　Sample Vector Discriminator Definition {55, smallint, null, 124, 10, 29}

| Vector Element	Discriminator	Allowable Vector Element Types	Actual Vector Elements for Example
1	# of characters in attribute definition length	{natural number}	55
2	attribute data type	{varchar, char, float, decimal, serial, tinyint, smallint, integer, numeric}	smallint
3	Null value	{null, not null}	null
4	Total number of characters in attribute	{natural number}	124
5	Number of blank characters in attribute	{natural number}	10
6	Number of characters in attribute name length	{natural number}	29
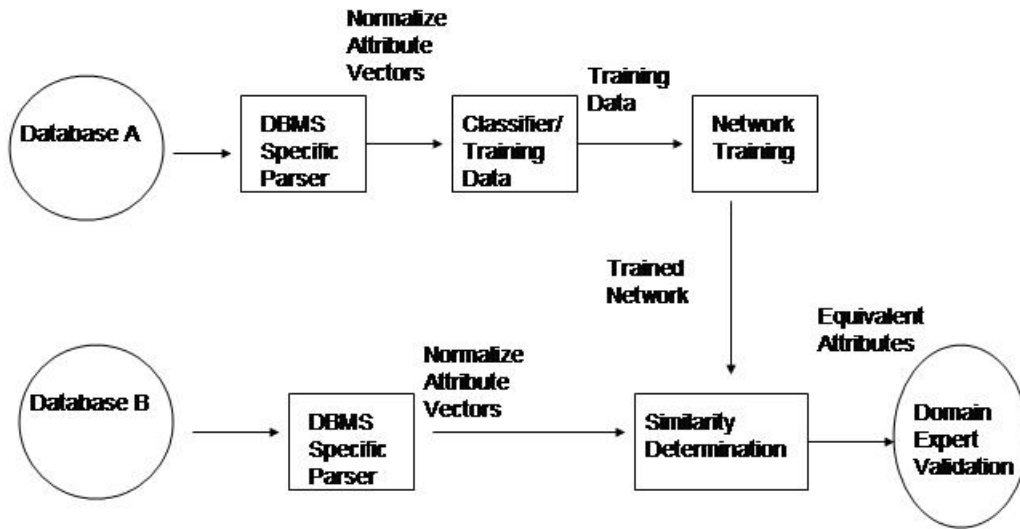
Figure 6.　　　　Outline of SEMINT Process

a.　　SEMINT Efficiency

SEMINT's output is a set of attributes based on neural network techniques. The analyst is required to evaluate the correctness of the attributes based on the data and other available information.　When SEMINT was used to

evaluate matches for DOD databases, it had a recall of 20% [LC00]. The advantage of SEMINT is that one does not require any prior background on the databases to start the SEMINT process; however, domain experts are still required to evaluate results.

OUR hybrid SEARCH method

Our search process incorporates features from each of the three methods we evaluated. In our process we use commercial text search engines as was done in DELTA [BFHW95], we tailor our queries to take advantage of stop-words, stemming, and case sensitivity as Stierna did in his work and we also incorporate the physical characteristics of the data attribute definitions as was done in the SEMINT process.

Our project goal was to map as many of the MIDB attributes into JCDB as we could. Our reason for this was other groups had already mapped some "Enemy" data attributes from MIDB to JCDB. Therefore, we felt that the JCDB was closer to being "JOINT and Integrated," across our military agencies and our allies than the MIDB database was.

We started by following the DELTA process and conducting natural language searches using the DELTA PL searching software. As described below, after several searches we noticed most of our searches would find the same few JCDB attributes no matter which MIDB attribute we used to form our PL natural language query.

For example when we conducted a query based on the MIDB attribute "Code" the highest ranked JCDB attributes we found using PL were "SUPPORTED-TARGET MIDB_BE_NUMBER" and "FACILITY BE INDENTIFIER" (see Figure 7). PL in its natural language searches uses frequency of words to rank its matches. A MIDB database attribute definition typically consists of multiple sentences to describe the attribute. Most JCDB attribute definitions are brief one-sentence definitions. JCDB has some attributes with detail definitions like the definitions in MIDB. We believe these JCDB attributes must have previously been matched with MIDB attributes and the definition used to describe the attribute was the MIDB version of the attribute. Since MIDB attribute definitions have many words and JCDB definitions have few words, a natural language search for an attribute in JCDB usually ranked those few attributes that

were already common with MIDB. An example of this are terms associated with the concept of "Basic Encyclopedia (BE) number", which is common to the MIDB and JCDB and has a lengthy definition typical of an MIDB attribute. Most of our PL natural language searches resulted in finding the JCDB's attributes that refer to Basic Encyclopedia as the highest ranked match. So the natural language search in PL that worked well in the DELTA process was not working for us because of the varying amount of detail the two databases we were working with had.
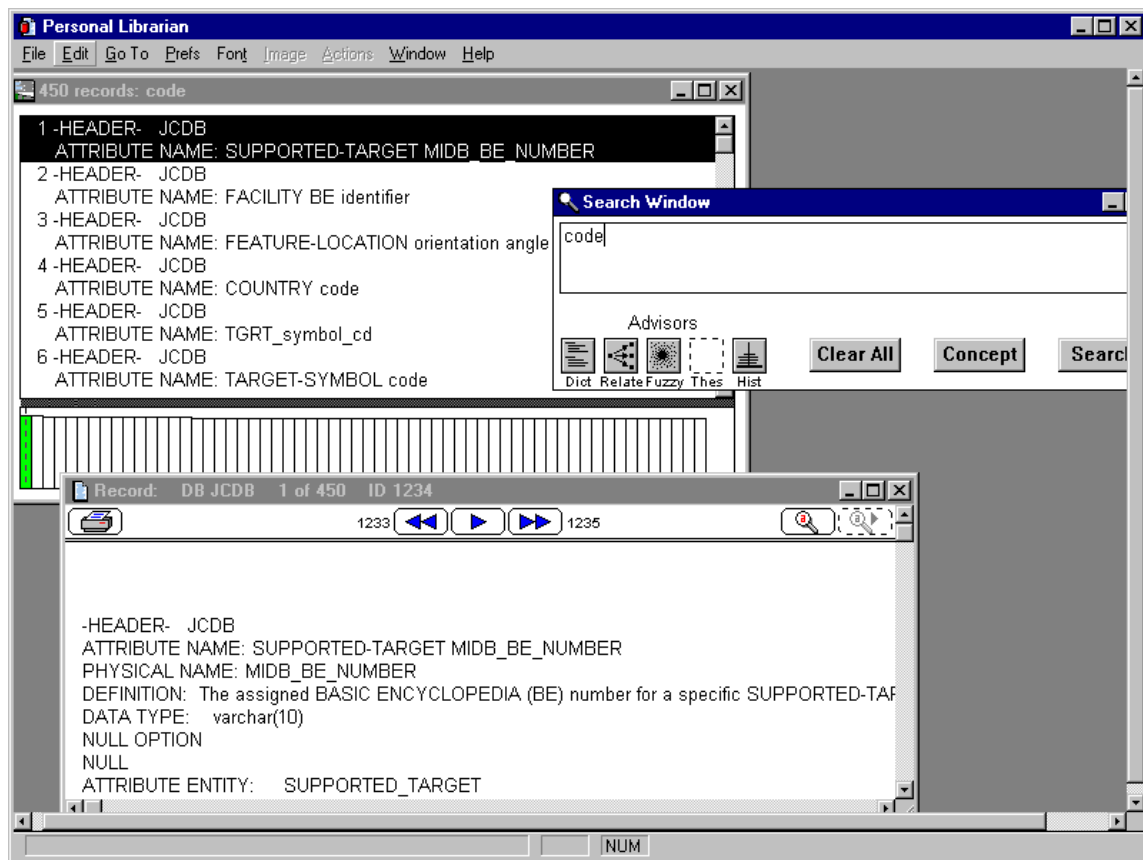
Figure 7.   Search Results for Attribute 'Code' Using PL

The next search type we tried in PL was the Boolean logic search. We would enter certain keywords that we found in the MIDB definition of an attribute in the PL software and we would conduct a search. We frequently got a statement saying, "Word not found". This is referred to as a synonym-matching problem and it is a common

problem in data mining and text retrieval software. Synonym matching implies that an exact match for the word was not found. For example, two databases could both have exactly the same type of information on cars; however, one database uses the word car to organize such data and the other uses automobile. Since the search engine does not understand that car and automobile are synonyms it never finds the match.

Due to the limited synonym matching capability in PL, we investigated another COTS text search engine, which better supports synonym matching. The software we selected was dtSearch. The software is available for a free 30-day trial evaluation at http://www.dtengine.com/download.html 04/04.

dtSearch software incorporates a mechanism that allows users to conduct a search with the aid of a commercial thesaurus (Wordnet). The thesaurus could address the synonym-matching problem we had with PL. The dtSearch software also has natural language, Boolean, phonic, fuzzy logic, stemming, adjacent and field search capabilities. dtSearch software offered more tools for conducting text searches then PL and the makers of dtSearch offered prompt replies to all our inquires. PL had been sold to AOL and they no longer offered any customer support.

Another nice feature of dtSearch that proved beneficial in our analysis was it lets users define their own thesaurus. We found this feature to be an extremely valuable tool in our particular case because DoD agencies often abbreviate names and use acronyms that are typically not found in commercial thesaurus software packages.

D.   OUR THESAURUS

Based on the above findings we decided to use dtSearch for our analysis. With dtSearch our first step was to develop a list of abbreviations and acronyms that are used in each database. In the case of JCDB this information was readily available in the Physical Naming Conventions file in Appendix C of the Data Dictionary. We added this list of acronyms and abbreviations to the dtSearch software's user thesaurus (see Figure 8). The figure shows synonyms we assigned to the term "a_cfeat", in our dtSearch thesaurus. We associate the terms airplane, aircraft, air plane, air craft, acrft, acft and a_cfeat to all mean the same thing in our user thesaurus.
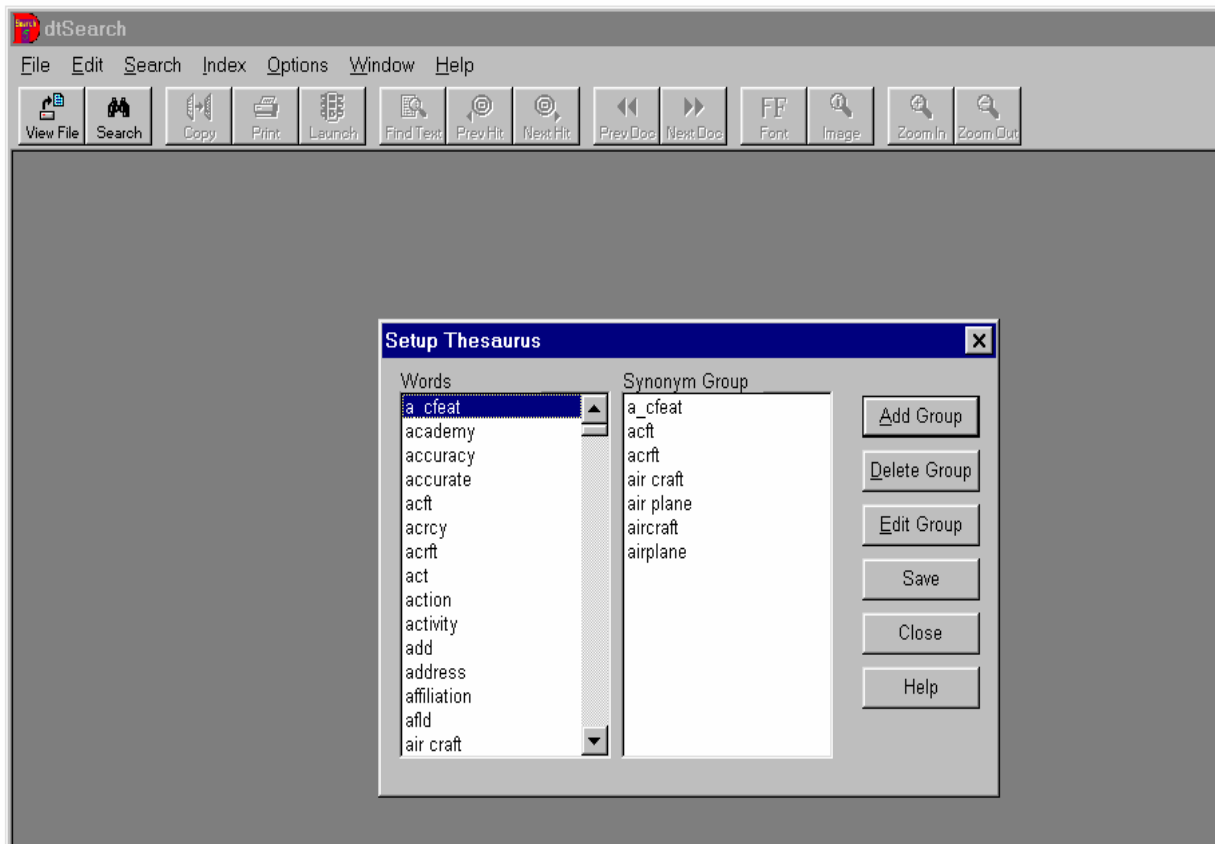
Figure 8.   Custom Thesaurus Creation in dtSearch

A similar physical naming convention file was not provided for the MIDB. In its place we were able to scan through the MIDB data dictionary attribute and element lists to determine the abbreviation and acronyms most often used in MIDB. Our compiled list of synonyms, abbreviations and acronyms used by JCDB or MIDB is provided in Table B below.

Table B.   Common Synonyms, Abbreviations & Acronyms in JCDB or MIDB

address , add , location	evaluation , eval*	qualification , background , education , qfn , training
air space, aspace , airspc , airspace	event, evnt, activity	qualifier , qal
airplane , aircraft , "air plane" , "air craft" , acrft , acft , a_cfeat	facility , fac , facl	quantity , quant , qty
airport , runway , airfield , airstrip , aport , afld , rnwy air trfc cntrl"	factory , depot , "manufacturing plant" , plant , warehouse	radar , scan , image
allegence , coalition , affiliation	feature , feat	radiation , rad
alternate , alt	feet , ft	railway , rwy
altitude , alt , altd	frequency , freq*	range , rng
amount , amt	function , funct , functional , func	release , launch , fire , shoot , strike , engage
angle , ang	group , grp	remark , comment , assessment , remarks , rmrks
association , assoc* , assc	height , ht	require , mandate , order
atmosphere , atmos , atmps , atms	holding , hldng	resource , res
battlefield , batfld , batlfld	identification , id , ident , idx , "call sign" , identifier	right , rt
bio , biology , biological	image , photo , graphic , display , imagery , overlay , olay	route , rte
bridge , brij	index , indx	school , academy
capability , capa	intelligence , intel , recon	sector , sct , grid , zone
category , cat	interval , intrvl , cycle , period	segment , seg , portion , partial
change , modify , update	item , itm	sensor , snsr
channel , chnls , chnl	kilometers , km	serial , ser
char , varchar	land , lnd	signal , sig , signature
classify , restrict , classified , restricted , classification	latitude , lat	start , strt
cloud , cld	left , lft	status , stat , update
code , cd	length , lgth	subject , sbjt , sbjct , sub
combat , cmbt* , cbat	level , lvl*	surface , srfc
command , cmnd , cmd*	longitude , long	symb , symbol
commander , cmndr , cmdr	maximum , max	system , sys
condition , cndtn , cndn	measurement , msrmnt	target , trgt , tgrt , tgt
confirm , validate , validated , ratify , corroborate	message , msg*	task , tsk , objective , mission , ato , plan , assignment , order , obrep
control , cntrl	mil* , military	tech , technology
coordinate , coord , coordin , corr , grid	mile , mi	temp , temperature
critical , significant	minimum , min	temp , temporary
data , information	name , nm , aka	text , txt
date, dt , datetime , dttm	num , number	time , tm
datum , dttm , "origination point"	object , obj , objct*	total , tot
dead , died , death , kill , killed , casualty , missing	obs , observation , ob	traffic , trfic
depth , dpth , dpt	olay , overlay	type , typ , tp
describe , descr , describtion , descrp , desc	on hand , oh	um , "unit of measure", dimension , dims , dim
descriminator , dscr	operating , opng	unit , unt
detail , dtl	operation , oper , ops	veh* , vehicle
dock , port	operational , ready , available , readiness , opl	vertical , vrt
document , doc , report , observation , observ , obrep , message , detect	order , command	vicinity , region , zone
e_ , enemy , en_	organization , org , e_org	volts , vlts
effective , eff	output , yield	water craft , ship, boat , submarine , barge , platform
element , elmnt	person , per , pers	weapon , wpn* , ord , muntin , muntn
elevation , elev* , elvat	point , pt , pnt	weight , wt
employment , emp , job , work , profession , skill_lvl	population , pop	width , wdth
enemy , en eorg , e_per , e_org , eper	priority , rank , relevent , pri	
eqp , equipment , equip , material , mat , matrl , materiel , equipt	probability , prob	

A user-defined thesaurus allows one to add acronyms and common abbreviations in queries that typically would not be found in commercial thesaurus packages such as WordNet. A search conducted with a user thesaurus is a more restrictive search than one done using the WordNet thesaurus. Depending on the specific search strategies one can use a user-defined thesaurus, a WordNet Thesaurus or the combination of the two. If a user is having difficulty finding any common attributes they may want to use both methods. If the combination returns multiple results, many of which are too general, a more restrictive search, should be conducted using just the user-defined thesaurus. Figure 9 shows a sample search menu in dtSearch using natural language, a user-defined thesaurus and the Wordnet thesaurus.
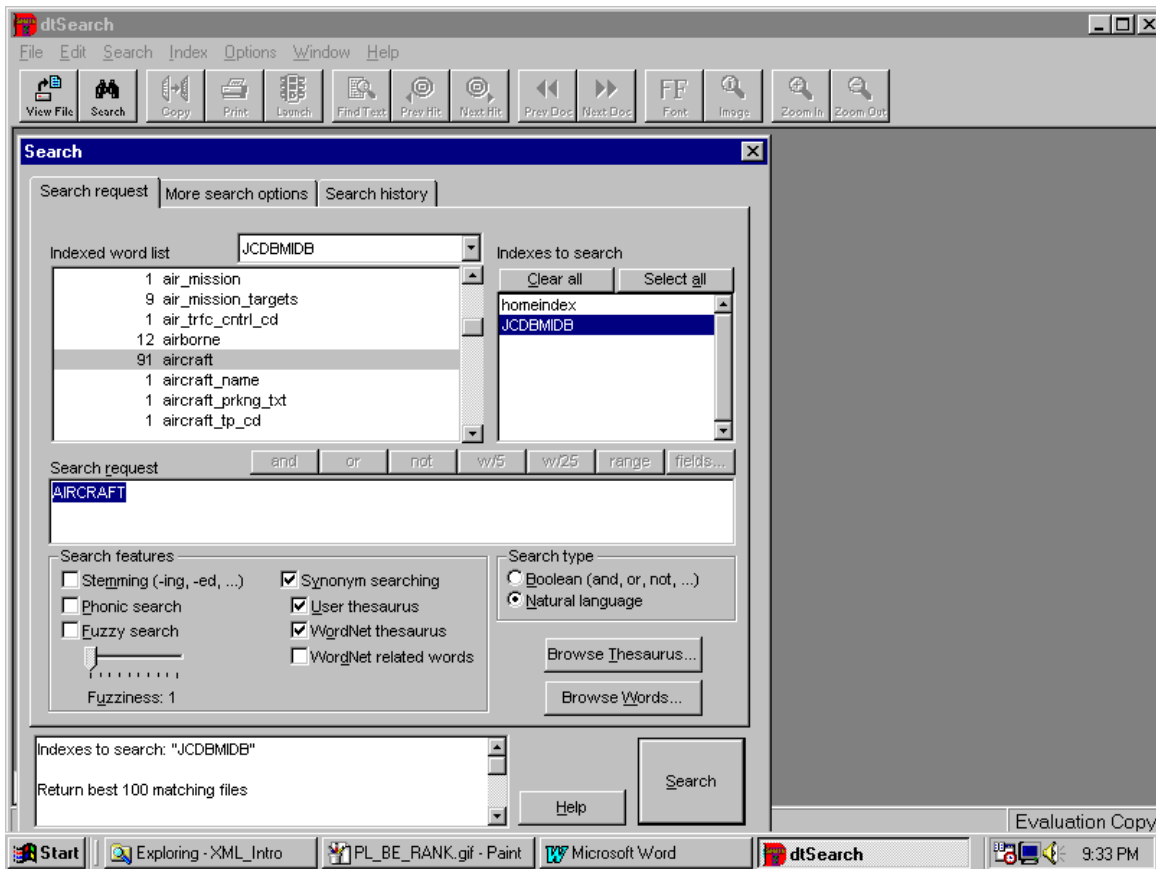
Figure 9.   Sample Natural Language Search for "Aircraft" with User Defined and Wordnet. Thesaurus Options Checked in dtSearch Software

In developing a thesaurus, you have to be careful with acronyms and abbreviations. For example, a keyword search for "prod" by it self did not find the

attribute "prod_level_req" unless an "*" (wildcard) was used to accommodate anything that may come after prod in a hyphenated word. Another problem that one may encounter is knowing where to put the wildcard. For example, a keyword search for pri* will not only find all attributes with the term "priority" in them but it will also find all attributes that have the acronym for pulse repetition interval, "PRI."

E.   CLUSTERS OR BASIC CONCEPT AREAS (BCA)

After developing the thesaurus for our project, we grouped the MIDB attributes into clusters or groups such as Target, Tracks, Observation, Facility, and Equipment. The clusters were created to break the task of finding attributes into smaller more manageable groupings as was done in the DELTA [BFHW95] method. We created our clusters by searching the MIDB for keywords that we felt could be used to describe each cluster. For example, when we developed the Target cluster, we provided a keyword query for the terms: Target, Mission, Location and Priority. This gave us a group of attributes that we put together to form our target cluster. We followed the same process for each of the clusters (target, tracks, observation, facility and equipment).

We analyzed three of these MIDB clusters, in our project. The three clusters selected were target, tracks, and observations. We selected these three clusters because the JBC community was concentrating on the same topics for other parallel integration efforts. Attributes contained in each of the three clusters are shown in tables C, D, and E below. Each cluster contains attributes, which can be used to describe the cluster. For example in the Track clusters, the attributes coord, ILAT, course, speed, etc. are all used to describe track data. Each of our clusters contains 160-300+ MIDB attributes.

Table C.   Track Attribute Cluster Found in MIDB

TRACK CLUSTER MIDB			
ACTIVITY_DESCR	DESTINATION_NAME	MIL_GRID	SCAN_HI
AFFILIATION	DESTINATION_SYMBOL_CODE	MIL_GRID_SYS	SCAN_ITEMS
AIR_DEF_AREA	ECHELON	MSN SECONDARY	SCAN_LO
AKA	ECM_TECHNIQUE	MSN SECONDARY SPECIALT	SCAN_MEAN
AKA_TYPE	ELEVATION	MSN_PRIMARY	SCAN_STD_DEV
ALERT	ELEVATION_ACC	MSN_PRIMARY_SPECIALTY	SCAN_SUM_W
ALLEGIANCE	ELEVATION_CONF_LVL	NET_LINK_TYPE_SPECIFIC	SCAN_SUM_W_OBS
ALTITUDE	ELEVATION_DATUM	OPER_STATUS	SCAN_SUM_W_OBS
ALTITUDE_UM	ELEVATION_DERIV	OSUFFIX_REF	SCAN_SUM_W_SQ
ANNEX_TYPE	ELEVATION_DERIV_ACC	PGRI MEAN	SCONUM
AOU_CONTAINMENT	ELEVATION_DERIV_ACC_UM	PGRI_HI	SEMI_MAJOR
AOU_LOB_ERROR	ELEVATION_MSL	PGRI_ITEMS	SEMI_MINOR
AOU_TYPE	ELEVATION_MSL_ACC	PGRI_LO	SEMI_UM
ASSOC	ELEVATION_MSL_CONF_LVL	PGRI_STD_DEV	SHIP_CLASS_NAME
ASSOC_BEGIN_DATE	ELEVATION_MSL_DERIV	PIN	SHIP_TRADEMARK
ASSOC_END_DATE	ELEVATION_MSL_DERIV_ACC	POL_SUBDIV	SHIP_TYPE
AZIMUTH	ELEVATION_MSL_DERIV_ACC_U	PRF_HI	SOURCE_DIGRAPH_FIRST
AZIMUTH_REF	ELEVATION_MSL_UM	PRF_ITEMS	SOURCE_DIGRAPH_LAST
BE_NUMBER_REF	ELEVATION_UM	PRF_LO	SPEED
BLOCK_INTRVL	ELNOT	PRF_STD_DEV	SPEED_UM
BLOCK_INTRVL_MAX	EMITTER_MODE	PRI_HI	SYMBOL_CODE
CALLSIGN	EQP_CODE_REF	PRI_ITEMS	TEMPLATE_FLAG
CATEGORY_REF	EXTERNAL_ID	PRI_LO	THREAT
CC	EXTERNAL_ID_PREV	PRI_MEAN	TIE_BOOL
CONTACT_QTY	EXTERNAL_TGT_SYS_ID	PRI_STD_DEV	TIE_FROM_SK
COORD	FORCE	PRI_SUM_W	TIE_PROB
COORD DATUM	GEOIDAL_MSL_SEPARATION	PRI_SUM_W_OBS	TIE_TO_ENTITY
COORD DERIV	GEOIDAL_MSL_SEPARATION_UM	PRI_SUM_W_SQ	TIE_TO_SK
COORD_BASIS	GRAPHIC_AGENCY	PRIORITY_TGT_PREVIOUS	TRACK_AKA_SK
COORD_DATETIME	GRAPHIC_CC	PULSE DURATION MEAN	TRACK_ELINT_MODE_SK
COORD_DERIV_ACC	GRAPHIC_ED_DATE	PULSE_DURATION_HI	TRACK_LOC_SK
COORD_DERIV_ACC_UM	GRAPHIC_ED_NUM	PULSE_DURATION_ITEMS	TRACK_NAME
COORD_ROA	GRAPHIC_SCALE	PULSE_DURATION_LO	TRACK_SK
COORD_ROA_CONF_LVL	GRAPHIC_SERIES	PULSE_DURATION_STD_DEV	TRACK_TIE_SK
COORD_ROA_UM	GRAPHIC_SHEET	RF_HI	TRACK_TIE_STAT_SK
COURSE	ILAT	RF_ITEMS	TRACK_TYPE
COURSE_REF	ILON	RF_LO	UNIT_ID_REF
DATETIME_LAST_OBS	LAND_TYPE	RF_MEAN	UTM
DELETE_POINTER	LOC_NAME	RF_SUM_W	WAC
DESTINATION_COORD	LOC_REASON	RF_SUM_W_OBS	WATERBODY
DESTINATION_DATETIME	MIL_AREA	RF_SUM_W_SQ	

Table D.   Observation Attribute Cluster Found in MIDB

OBSERVATION CLUSTER MIDB			
ACCESS	DELETE_POINTER	IDENT_SCORE	PIN_OVRWRT
AFFILIATION	DESTINATION_COORD	ILAT	POL_SUBDIV
AIR_DEF_AREA	DESTINATION_DATETIME	ILLUMINATION_RATE	POLARIZATION
ALERT	DESTINATION_NAME	ILLUMINATION_RATE_STD_DE	PRI_ACTIVITY_CODE
ALLEGIANCE	DESTINATION_SYMBOL_CODE	ILON	PRI_BASE
ALTITUDE_STD_DEV	DURATION	LOAD_CLASS_EVAL	PRI_CALCULATED
AOU_CONTAINMENT	ELEVATION	LOC_NAME	PRI_LEG_QTY
AOU_LOB_ERROR	ELEVATION_ACC	MHS_NUM	PRI_LEG_QTY
AOU_TYPE	ELEVATION_CONF_LVL	MIL_AREA	PRI_SUM_W_OBS
ASSESS_DATETIME	ELEVATION_DATUM	MIL_GRID	PRI_TYPE
AZIMUTH	ELEVATION_DERIV	MIL_GRID_SYS	PULSE_AMPLITUDE
AZIMUTH_REF	ELEVATION_DERIV_ACC	MODULATION_EPL	PULSE_DURATION
BEAM_WIDTH	ELEVATION_DERIV_ACC_UM	MSG_DTG	PULSE_DURATION_STD_DEV
BURST_STD_DEV	ELEVATION_MSL	MSG_NUM	PULSE_QTY
CASE_NOTATION	ELEVATION_MSL_ACC	MSG_ORIGIN	PULSE_STD_DEV
CC	ELEVATION_MSL_CONF_LVL	MSG_PRECEDENCE	RE_IDENT_FAIL
CC_OVRWRT	ELEVATION_MSL_DERIV	MSG_SECTION_NUM	RF_AGILITY_FLAG
CLUSTER_ID	ELEVATION_MSL_DERIV_ACC	MSG_TYPE	RF_CODE_LIMIT
COLL_COORD	ELEVATION_MSL_DERIV_ACC_U	MSG_UPDATE_NUM	RF_OPER_MODE
COLL_ILAT	ELEVATION_MSL_UM	MSN_NAME	RF_STD_DEV
COLL_ILON	ELEVATION_UM	OB_ASSOC_PRIMARY	RF_SUM_W_OBS
COLL_PROJECT_ID	ELNOT_CHANGE	OB_ASSOC_SECONDARY	RF_TYPE
COLL_SYMBOL_CODE	ELNOT_CONF	OB_TYPE	SCAN
COLL_WEIGHT	ELNOT_CONF_ORIGINAL	OBS_AKA_SK	SCAN_STD_DEV
CONTACT_QTY	ELNOT_ORIGINAL	OBS_COMM_SITE_SK	SCAN_SUM_W_OBS
COORD	ELNOT_RE_IDENT	OBS_CONDITION	SEMI_MAJOR
COORD_BASIS	EMITTER_ID	OBS_CONDITION_SECONDARY	SEMI_MINOR
COORD_DATETIME	EMITTER_NAME	OBS_DATETIME	SEMI_UM
COORD_DATUM	EMITTER_NATO_NAME	OBS_ELINT_PAR_SK	SIG
COORD_DERIV	EXTERNAL_ID	OBS_ELNOT_SK	SIG_MODE
COORD_DERIV_ACC	EXTERNAL_ID_PREV	OBS_LENGTH	SITE_TYPE
COORD_DERIV_ACC_UM	EXTERNAL_RMK_ID	OBS_LENGTH_UM	SOURCE_DIGRAPH
COORD_ROA	EXTERNAL_RMK_QTY	OBS_NAME	SOURCE_NAME
COORD_ROA_CONF_LVL	GEOIDAL_MSL_SEPARATION	OBS_PAR_SK	SOURCE_TRIGRAPH
COORD_ROA_UM	GEOIDAL_MSL_SEPARATION_UM	OBS_REPORT_SK	SYMBOL_CODE
CORR_DATETIME	GRAPHIC_AGENCY	OBS_SK	TIE_PROB
CORR_OVRWRT	GRAPHIC_CC	OBS_TIE_SK	TIE_TO_ENTITY
CORR_OVRWRT	GRAPHIC_ED_DATE	OBS_TIE_STAT_SK	UTM
CORR_STEP	GRAPHIC_ED_NUM	OBS_WIDTH	VERIF_FIX_NAME
CORR_STEP	GRAPHIC_SCALE	OBS_WIDTH_UM	WAC
COVERED_PERCENT	GRAPHIC_SERIES	PERIODICITY	WATERBODY
DATETIME_LAST_OBS	GRAPHIC_SHEET	PGRI	
DEGREE_INTEREST	ICON_CODE	PIN	

Table E.   Target Attribute Cluster Found in MIDB

TARGET MIDB			
ACFT INTERVALOMETER UM	EFFECT_IDX_VALUE_UM	MIN_IMPACT_SPEED	TASKED_UNIT_NAME
ACFT MECHANIZATION	ELEVATION	MSN TYPE	TDI
ACFT MODE	ELEVATION ACC	MSN_CALLSIGN	TERMINAL IMPACT AZIMUTH
ACFT QTY	ELEVATION DERIV ACC	MSN_ID	TERMINAL_IMPACT_ANGLE
ACFT_ADD_FACTORS	ELEVATION MSL	MSN_NAME	TERMINAL_IMPACT_SPEED
ACFT_INTERVALOMETER	ELEVATION MSL CONF LVL	MSN_PRIMARY	TGT DTL NAME
ACFT_TYPE	ELEVATION_CONF_LVL	MSN_PRIMARY_SPECIALTY	TGT LIST STATUS
ACTIVITY	ELEVATION_DATUM	MSN_SECONDARY	TGT RESTR
AFFILIATION	ELEVATION_DERIV	MSN_SECONDARY_SPECIALT	TGT RESTR REASON
AIR DEF AREA	ELEVATION_DERIV_ACC_UM	MSN_SUCCESS	TGT SUSCEPTIBILITY
AKA	ELEVATION_MSL_ACC	NO STRIKE	TGT SYS CODE
AKA_TYPE	ELEVATION_MSL_DERIV	OB_TYPE	TGT SYS NAME
ALERT	ELEVATION_MSL_DERIV_ACC	OBS CONDITION	TGT_DTL_AIMPT_WPN_SK
ALLEGIANCE	ELEVATION_MSL_DERIV_ACC_U	OBS CONDITION SECONDARY	TGT_DTL_AIMPT_WPN_TIE_SK
ALTITUDE_UM	ELEVATION_MSL_UM	OBS LENGTH UM	TGT_DTL_AKA_SK
AMOUNT_UM	ELEVATION_UM	OBS WIDTH UM	TGT_DTL_ASSESS_SK
AREA EVAL	EMITTER_HEIGHT_UM	OPEN STG UM	TGT_DTL_NAME
AREA UM	ENTRY_WIDTH_EVAL	OPEN_STG_UM	TGT_DTL_SK
ASSESS DATETIME	ENTRY_WIDTH_UM	OPER_STATUS	TGT_DTL_TIE_SK
ASSESS_TYPE	EQP CODE	OPERATION_NAME	TGT_LIST_NAME
ASSOC	ERROR PROB CIRCULAR UM	OUTPUT EVAL	TGT_LIST_NUM
ASSOC BEGIN DATE	ERROR PROB DEFLECTION	OUTPUT UM	TGT_LIST_ORIGINATOR
ASSOC_END_DATE	ERROR PROB DEFLECTION UM	PASSES_AVAIL_QTY	TGT_LIST_SK
ATO_ACFT_TYPE	ERROR PROB RANGE	PASSES_QTY	TGT_LIST_STATUS
ATTACK ANGLE	ERROR_PLANE	PEN EQ THICKNESS UM	TGT_LIST_TIE_ORDER_SK
ATTACK_ANGLE	ERROR_PROB_CIRCULAR	PERCENT DAMAGED	TGT_LIST_TIE_ORDER_TIE_SK
AZIMUTH	ERROR_PROB_CIRCULAR	PERCENT DESTROYED	TGT_LIST_TYPE
AZIMUTH_REF	ERROR_PROB_HIT	PERCENT RECUP	TGT_MSN_SK
BLOCK INTRVL UM	ERROR_PROB_NEAR_MISS	PHOTO_DATE	TGT_MSN_TIE_SK
CAPACITY EVAL	ERROR_PROB_RANGE_UM	POL_SUBDIV	TGT_OBJ_AKA_SK
CAPACITY UM	ERROR_PROB_RANGE_UM	PRESSURE UM	TGT_OBJ_NAME
CASE_NUM	ERROR_RANGE_BIAS	PRIORITY TGT	TGT_OBJ_SK
CATEGORY_NAME	ERROR_STRESS_LVL	PRIORITY TGT EXTERNAL	TGT_OBJ_TIE_SK
CATEGORY_REF	ERROR_SWITCH_SET	PRIORITY TGT PREVIOUS	TGT_RADIUS
CC	ERROR_TGT_CLASS	PRIORITY_LIST	TGT_RESTR
CHNL QTY EVAL	ERROR_TYPE	PRIORITY_OBJ	TGT_RESTR_REASON
CHNL_QTY_EVAL	EVAL	PRIORITY_TASK	TGT_SUSCEPTIBILITY
CMD_CNTL_COMM	EXECUTION_DATE	PROB DAMAGE TOTAL	TGT_SYS_ASSESS_SK
COLLATERAL DAMAGE	EXECUTION_DAY	PROB_DAMAGE_SORTIE	TGT_SYS_CODE

TARGET MIDB (continued)			
COMBAT EFFECTIVENESS	EXTERNAL_TGT_SYS_ID	QTY OH EVAL	TGT_SYS_EQP_SK
COMBAT STRENGTH	FLOOR SPACE UM	QTY PA EVAL	TGT_SYS_FAC_SK
CONDITION	FLOOR_SPACE_EVAL	QTY WA EVAL	TGT_SYS_SK
CONDITION AVAIL	FPA	QTY_EVAL	TGT_SYS_TIE_SK
COORD	FREQ UM	RADIAL_G_QTY	TGT_SYS_TYPE
COORD BASIS	FUZE_ARM_TIME	RADIUS	TGT_SYS_UNIT_SK
COORD DATETIME	FUZE_DELAY_TIME	RADIUS UM	THICKNESS_UM
COORD DATUM	FUZE_MODE	RECCE RQD	TIE_BOOL
COORD DERIV	FUZE_NAME	RECUP INTRVL UM	TIE_FROM_SK
COORD DERIV ACC	FUZE_SETTING_ALTITUDE	RECUP_INTRVL	TIE_TO_ENTITY
COORD ROA UM	FUZE_SETTING_TIME	RECUP_INTRVL_MAX	TIE_TO_SK
COORD_DERIV_ACC_UM	GEODETIC_PROD	RELEASE ALTITUDE	TOT DATETIME
COORD_ROA	GEOIDAL MSL SEPARATION UM	RELEASE_ANGLE	TOT DATETIME EST
COORD_ROA_CONF_LVL	GEOIDAL_MSL_SEPARATION	RELEASE_MANEUVER	TOT_DATETIME
COVERED_PERCENT	GRAPHIC SERIES	RELEASE_VELOCITY	TOT_DATETIME_EST
CURRENT_SPEED_UM	GRAPHIC_AGENCY	REQUEST	TRAIT EVAL
DAMAGE_CRITERION	GRAPHIC_CC	RMK TYPE	TRAIT EVAL
DEPTH_EVAL	GRAPHIC_ED_DATE	ROCK JOINT SPACING UM	TURN BASIN DEPTH UM
DEPTH_UM	GRAPHIC_ED_NUM	RWY CUT QTY	TURN BASIN DEPTH UM
DESCR_VALUE_UM	GRAPHIC_SCALE	RWY MIN CLEAR LENGTH	TURN BASIN DIAMETER UM
DESIGN_LOAD_UM	GRAPHIC_SHEET	RWY MIN CLEAR WIDTH	TURN_BASIN_DIAMETER
DIAMETER_EVAL	GUN_FIRE_RATE	RWY_CUT_CRATERS_QTY	USEABLE LENGTH UM
DIAMETER_UM	HARDNESS	RWY_OVERRUN_UM	USEABLE_LENGTH_UM
DIGITAL_DATA_RATE_UM	HEIGHT	SCL CODE	UTM
DISPNSR ALTITUDE	HEIGHT EVAL	SEMI UM	VEGETATION_HEIGHT_UM
DISPNSR PAT DIMENSION	HEIGHT UM	SHAPE	VEHICLE_INTRVL_UM
DISPNSR PAT LENGTH	ILAT	SHOULDER CONDITION	VERTICAL CLEARANCE EVAL
DISPNSR PAT RADIUS	ILLUMINATION RATE	SHOULDER WIDTH UM	VERTICAL ORIENT
DISPNSR PAT TYPE	ILON	SLANT_RANGE	VERTICAL_CLEARANCE_UM
DISPNSR PAT WIDTH	JMEM TYPE	SPAN LENGTH UM	WAC
DISPNSR SPIN RATE	LENGTH	SPEED STD DEV	WATERBODY
DISPNSR_PAT_AZIMUTH	LENGTH EVAL	SPEED_UM	WIDTH
DISTANCE_UM	LENGTH UM	STD_SECTION_LENGTH_UM	WIDTH_EVAL
DIVE ANGLE AT DISPENSE	LINE WIDTH UM	STRENGTH UM	WIDTH_UM
DMPI IMPACT ANGLE	LOC EIGHT HOUR	SWELL UM	WPN AZIMUTH AT DISPENSE
DMPI_ID	LOC FOUR HOUR	SYMBOL_CODE	WPN MULTIPLE
DOC_STATUS	LOC_NAME	TASK_ORDER_DTG	WPN NAME
DOC_TYPE	MATERIAL DEPTH EVAL	TASK_ORDER_DTG_BEGIN	WPN PAT LENGTH
ECHELON	MATERIAL DEPTH UM	TASK_ORDER_DTG_END	WPN PAT WIDTH
ECM_TECHNIQUE	MIL_AREA	TASK_ORDER_ID	WPN QTY
EFFECT IDX VALUE	MIL_GRID	TASK_ORDER_ORIGINATOR	WPN_CPD
EFFECT_IDX_TYPE	MIL_GRID_SYS	TASK_ORDER_TYPE	

F.   DATA TYPE CONFLICTS

We started searching the JCDB using dtSearch and the MIDB target cluster attributes. The attribute definitions and the data type they represented were used as query terms. While evaluating our initial search results we determined that the databases did not have common data types amongst them. Data type specific issues or idiosyncrasies discovered in our evaluation of the two databases include: JCDB does not have any char types; it only has varchar; MIDB has both varchar and char; JCDB only has 3 attributes with float type whereas MIDB has over a hundred; JCDB has multiple attributes of decimal type whereas MIDB has no decimal types; MIDB has multiple attributes of type

tinyint; JCDB has no tinyint; MIDB has 9 smallint types whereas JCDB has over 400; and JCDB has over 100 attributes of serial type whereas MIDB has none. We have provided a list of data type variations in our two databases in Table F below.

Table F.   JCDB and MIDB Data Types

Data Type	MIDB	JCDB
Varchar	Multiple attributes	Multiple attributes
Char	Multiple attributes	No attributes
Float	Multiple attributes	3 attributes
Decimal	No attributes	Multiple attributes
Serial	No attributes	Multiple attributes
Tinyint	Multiple attributes	No attributes
Smallint	9 attributes	Multiple attributes
Integer, Numeric	Multiple attributes	Multiple attributes

As a result, we made some assumptions after several matches were identified. The assumptions are type char in MIDB is equivalent to type varchar in JCDB, since JCDB has no char data types. A float data type in MIDB is most likely equal to a decimal or numeric data type in JCDB. A tinyint data type in MIDB is similar to a smallint data type or possibly an integer data type in JCDB. Since MIDB does not have any serial data types it was assumed that a JCDB serial data type is equivalent to an integer data type in MIDB. We addressed data type conflicts between the two databases by listing the data type sets in Table G as synonyms for each other in our user defined thesaurus. Whenever we conducted a query for an attribute that was datatype char, the dtSearch tool automatically evaluated those attributes that were also of type varchar.

Table G.   Equivalent Data Types in Our Search Process

MIDB	JCDB
varchar, char	varchar
float, numeric	decimal, numeric
integer	serial, integer
tinyint	smallint, integer

After constructing the table of equivalent datatypes the search process continued. Subsequently it was noticed that natural language searches in dtSearch were not finding data ranked by most relevant items. The natural language ranking method used in PL is different than what is used in dtSearch. A sample natural language search for the attribute "aircraft park area" in PL found the attribute, "AIRPORT total hardstand count quantity" and ranked it as number three (Figure 10) whereas the same natural language query in dtSearch ranked the attribute 65th. Figures 10 and 11 compare the results of the natural language search by PL and dtSearch, respectively.
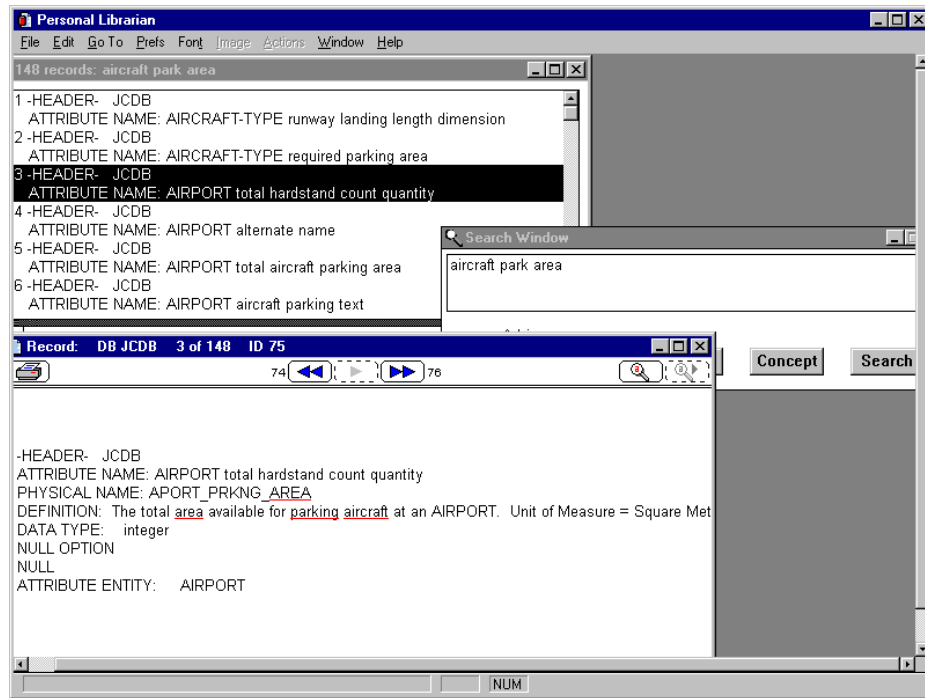
Figure 10.   A Natural Language Search for "Aircaft Parking Area" Using PL Ranks the Match # 3.

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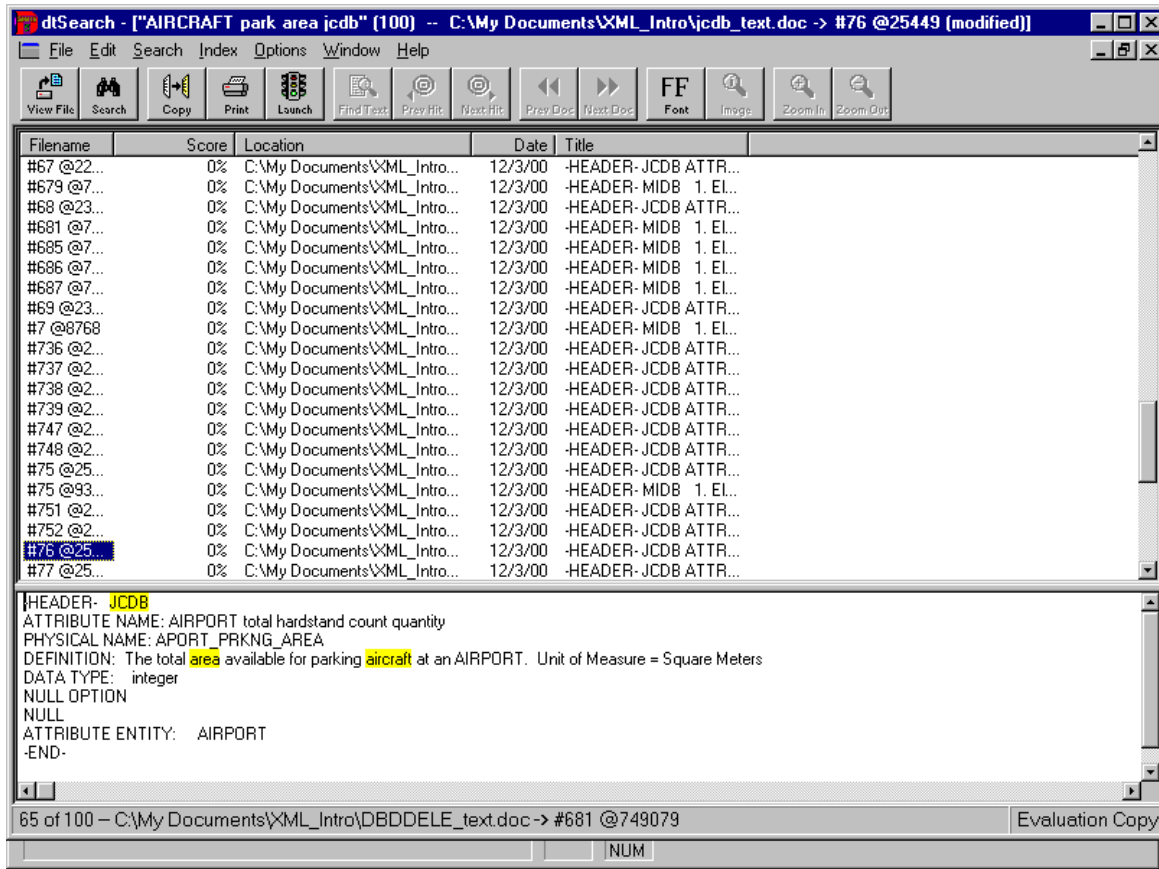
Figure 11.   Natural Language Search for "Aircraft Parking Area" in dtSearch Found and Ranked the Match Around 30-50.

As the matching process was continued, it became obvious that no single text search query method was always going to find the best match. Therefore, a strategy of using both search tools for our matching process was adopted. Based on the query results from each tool the best match or matches were selected.

G.   OUR PROCESS

Our final search process is outlined in Figure 12 below. The process consists of first collecting the data dictionaries of each of the databases involved. The dictionaries were then formatted into a common format for easier readability. The formatted data dictionaries are loaded into the dtSearch software. After loading we created an initial user thesaurus using the physical naming convention documents and by scanning the

actual attributes to find common acronyms, synonyms and abbreviations. These acronyms, abbreviations and synonyms are incorporated into the user thesaurus. After the thesaurus is created we separated the data dictionaries into cluster areas or BCAs. The clusters were created by conducting keyword searches for specific cluster related terms in dtSearch. For example we created the Target cluster (Table E) by looking for all attributes that included the word target or any one of its related terms in our user defined thesaurus.
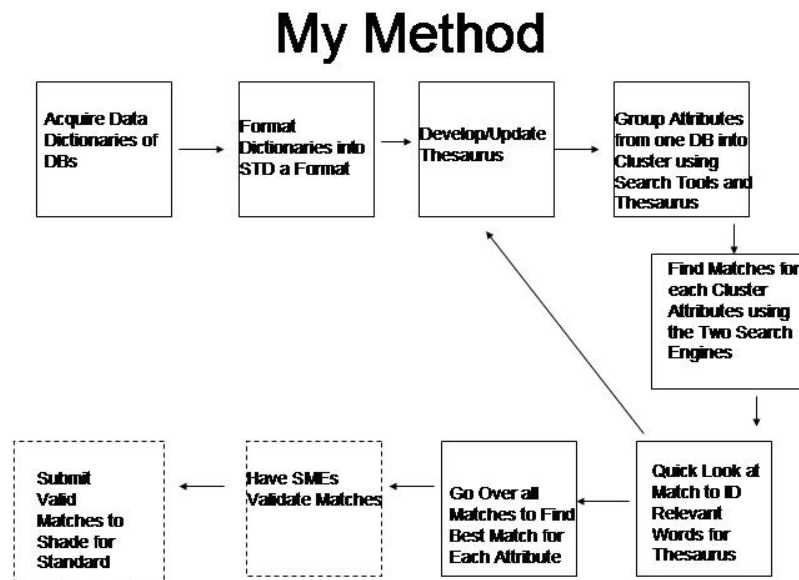
Figure 12.   Our Search Process

After creating the clusters we started our matching process. This was done by searching on the attribute definition or key words describing the attribute and data type characteristics. We concentrated on finding matches for one cluster at a time. Each search was started by using PL's natural language search or dtSearch's Boolean logic and natural language search operations. If an immediate match was not found with one search method a second search was conducted using the other method. Each time a good match was found we scanned the attribute definition to see if additional terms could be

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added to our user thesaurus to enhance future searches. After all the attributes in one cluster were evaluated we went over the attributes and ranked the matches as being equivalent, similar concept or no similar concept.

Once the thesaurus and data were loaded into the software, the matching process averaged about 12-16 matches per hour. Additional time was spent going over each match and categorizing the results into the three match classifications. The classification process averaged about 12-16 classifications per hour.

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III. RESULTS OF APPLICATION OF OUR CORROLATION PROCESS TO SELECTED DATABASE CORROLATION

A. CORRESPONDING ATTRIBUTE CLASSIFICATIONS

Corresponding attributes in our analysis identify each MIDB attribute as having equivalent attributes, similar concept attributes or no similar concept attributes in the JCDB database. Equivalent attributes will be those attributes with the same definition and minor conflicts in data types or null values. Similar concept attributes shall be those attributes with close definitions, however with significant differences in data types and other data dictionary values. Attributes classified as "no similarity concept" attributes shall be those attributes that have very different definitions as is common in homonyms.

We recommend that attributes classified as "similar concept" and "equivalent attribute" should be sent to domain experts for further evaluation. Care must be taken in evaluating our matches since we are not domain experts. Even though two attributes may have the exact same definitions, there maybe subtle differences that are not specified at the data dictionary level that only a domain expert would know. For example, we have identified the attribute COORD-ROA that is in each database to be equivalent. From JCDB the definition of COORD_ROA is, "The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence." The MIDB definition for COORD_ROA is "Indicates the radius of the circle that the coordinate is contained within as a measure of confidence." To a novice the definitions sound equivalent. However, domain experts for each database would still need to evaluate the recommendation because level of confidence referred to in each definition could imply different values. COORD-ROA in one database could imply the value must be within +/- 5 meters and in the other database could imply the value must be within +/- 5Km. Such differences if not carefully evaluated by domain experts could result in missing a target or worst yet hitting friendly forces in the area of the target.

The final group of equivalent attributes we found using our technique is summarized in Table H. Detailed information on the matches can be found in

Appendices A and B.   Appendix A has equivalent matches for each cluster area and Appendix B has similar matches.

Table H.   MIDB Attributes and Their Equivalent JCDB Attrributes Found Using Our Method

MIDB attribute	Equivalent JCDB attributes
COORD_ROA	COORD_ROA
ELEVATION_MSL	ELEVATION_m
GRAPHIC _AGENCY	AIR_TRFC_CNTRL_CD
GRAPHIC_ED_NUM	MAP_EDITION_ID, PLANOLAY_INDX
GRAPHIC SCALE	MAP_SCALE_CD
MSG_ORIGIN	MSG_ORGNTR_OBJ_ID
ILAT	Lat
MIL_GRID_SYS	GRID_SYS_USE_CD
OBS_CONDITION	CONDITION, PREOP_STAT_CD, OPER_STATUS
EMITTER_ID	HULTEC_NUMBER
ALTITUDE	MET_ALTITUDE_DM_m
MSN_PRIMARY	MSN_CD, NETNODE_PRIM_MSN, MSN_SPECIALTY
MSN_PRIMARY_SPECIALTY	NETNODE_PRIM_MSN
OSUFFIX_REF	OSUFFIX, MIDB_O_SUFFIX
ACFT_ADD_FACTORS	ACFT_MODE
COMBAT_EFFECTIVENESS	ORG_COMBAT_INT_CD, ORG_COMBAT_EFF_CD, ORG_CBAT_REDINESS, COMBAT_STRENGTH
STRENGTH_MAX	ORG_COMBAT_INT_CD
CONDITION	CONDITION
ECHELON	ECHELON_CD
TGT_SYS_FAC_SK	FAC_SK
MSN_ID	PLAN_INDX, PLAN_NAME

OB_TYPE	OB_TYPE, batfld_obj_id, EQUIP_CAT_CD
PERCENT_DAMAGED	PERCENT_DAMAGED
SYMBOL_CODE	SYMBOL_CD, gsd_id, FAC_SYMBOL_ID
ACFT_MODE	ACFT_MODE
CONDITION_AVAIL	AVAILABILITY_CD, CONDITION
DAMAGE_CRITERION	EFFECTS_PERCENT
DISPNSR_PAT_WIDTH	MUNTN_PATRN_WDTH
DMPI_ID	STRGT_LOC_PT_INDX, SUPRTD_TARGET_INDX, SUP_TRGT_LOC_INDX, ENEMY_MAT_INDX
DMPI_IMPACT_ANGLE	TARGET_BEARING
ERROR_PROB_RANGE	WPN_ACCURACY_DIM
HARDNESS	FAC_DESIGN
OBS_CONDITION	CONDITION
EVAL	SOURCE_REL_CD
TGT_LIST_SK	CTRGT_ASSC_INDX, FAC_SK
TGT_RADIUS	CTRGT_RADIUS_DIM_m

For this paper, we evaluated three published processes and discussed how we tailored them to fit our database analysis. We grouped our match results into three categories: those that we feel are equivalent, those that are similar and those that do not have a match. Some interesting facts that we discovered during our matching process about the databases are damage assessment data, graphics/map data and operational status of equipment/personnel data were areas with the most equivalent and similar attributes in the two databases. Attributes in these areas should be relatively easy to merge.

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IV. CONCLUSION AND FUTURE WORK

In most cases after the search engine provided its results, we had to evaluate whether the results were suitable or not. Most of the time we looked at the definitions, data types, and tables to which the attributes belonged to determine their adequacy.   The final decision was a subjective evaluation by the author. If someone has to do this again in the future, the author strongly recommends establishing a criterion for what should or should not be accepted, before automating the process. Such criteria would serve to eliminate variances in the evaluation process due to different perpectives among users or inconsistencies caused by user fatigue.   Automating the process would eliminate the subjective human evaluation aspect.

The thesaurus was developed using naming convention and visually scanning actual attributes in the data dictionaries. The lack of domain expertise made it difficult to rule out items that did not belong in the user thesaurus. In the future, it is recommended that a domain expert from each database organization be consulted to review the user-defined thesaurus to rule out obvious mismatches. Likewise, the clusters were formed based on the author's interpretation of common themes for the cluster.   It is also recommended that a domain expert be consulted when forming a cluster.

Query expansion is critical since each time a good match is found, additional information from the match is gained and the new information can be used to improve future matches. If an automated process were developed, it would be advisable to process the initial set of matches through a second time due to information gained via query expansion.

Other cluster areas or BCAs that may be easy to merge are Equipment, Material, and Facilities. During our searching and matching process there appeared to be many similarities between the two databases in these areas.

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APPENDIX A.   (EQUIVALENT ATTRIBUTES)

Appendix A shows those MIDB attributes that are believed to have equivalent JCDB attributes. The MIDB attribute

definition is provided in the first row and the corresponding JCDB attributes follow in the shaded rows.

A.   OBSERVATION EQUIVALENT ATTRIBUTES

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	ACFT_ADD_FACTORS	Additional Factors Affecting Aircraft Accuracy. Applicable only with unguided weapon delivery accuracie	CHAR(6)	
JCDB	ACFT_MODE	Aircraft mode (sensor used to present information to the weapon delivery computer). Applicable only with unguided weapon delivery accuracies.	varchar(12)	AIRCRAFT-TYPE
MIDB	COMBAT_EFFECTIVENESS	A measure of the ability of a unit to wage war, expressed as a percentage; reflects an assessment of both the unit's personnel strength and it current (versus nominal) equipment strength, both in context of the unit's primary mission. For example, a SAM battery with all its people but no equipment has a STRENGTH = 100 but EFFECTIVENESS = 0, since its mission is to fire missles. An infantry unit with all its people but no equipment would have an EFFECTIVENESS > 0.	TINYINT	
JCDB	ORG_COMBAT_INT_CD	The code that denotes the combat intensity of an ORGANIZATION-OPERATIONAL-STATUS.	SMALLINT	ORGANIZATION-OPERATIONAL-STATUS
JCDB	ORG_COMBAT_EFF_CD	The code that represents the current combat effectiveness for a specific ORGANIZATION	INTEGER	ORGANIZATION-OPERATIONAL-STATUS
JCDB	ORG_CBAT_REDINESS	The code that denotes a commanders assessment of an organization's readiness to perform combat missions.	SMALLINT	ORGANIZATION-OPERATIONAL-STATUS
JCDB	COMBAT_STRENGTH	The value that represents the percentage of an ENEMY ORGANIZATION's full strength	INTEGER	ENEMY-ORGANIZATION-OPERATIONAL-STATUS

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Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	COMBAT STRENGTH	A measure of the personnel strength of a unit, expressed as a percentage of the estimate of its current strength compared to its established or projected nominal strength.	TINYINT	
JCDB	COMBAT_STRENGTH	The value that represents the percentage of an ENEMY ORGANIZATION's full strength	INTEGER	ENEMY-ORGANIZATION-OPERATIONAL-STATUS
JCDB	ORG_COMBAT_INT_CD	The code that denotes the combat intensity of an ORGANIZATION-OPERATIONAL-STATUS.	SMALLINT	ORGANIZATION-OPERATIONAL-STATUS
MIDB	CONDTION	The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action.	CHAR(4)	
JCDB	CONDITION	The code that denotes the operational state of an ORGANIZATION.	VARCHAR(4)	ENEMY_MAT_OPL_STAT
JCDB	CONDITION	The code that denotes the general operating condition of a specific FACILITY. The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action. (MIDB)	varchar(4)	FACILITY-OPERATIONAL-STATUS
MIDB	COORD_ROA	Indicates the radius of the circle that the coordinate is contained within as a measure of confidence.	FLOAT	
JCDB	COORD_ROA	The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	NUMERIC(6,1)	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	ECHELON	Organizational level of the unit	CHAR(4)	
JCDB	ECHELON_CD	The code that denotes a class to which a unit belongs that is defined as the lowest structural level or point at which organizational control or authority of an ORGANIZATION-TYPE is concentrated	SMALLINT	ORGANIZATION-TYPE
MIDB	TGT_SYS_FAC_SK	The surrogate key, established at row creation time, uniquely identifies each row of TARGET SYSTEM FACILITY data.	NUMERIC(14,0)	
JCDB	FAC_SK	The unique surrogate key which identifies a specific FACILITY as ENEMY. The surrogate key, established at row creation time, uniquely identifies each row of TARGET SYSTEM FACILITY data. Permissible Values: SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	VARCHAR(14)	FACILITY
MIDB	MSN_ID	A unique identifier for the mission.	VARCHAR(15)	
JCDB	PLAN_INDX	The unique user generated identifier that represents a scheme for achieving an end over time. (As a minimum, the identifier will contain the Unit Name/Number) for which the plan is being developed. as well as an abbreviated PLAN NAME: DA	8 INTEGER SERIAL 9 INTEGER	AIR_MISSION_TARGETS ANNEX COMMAND-SI
JCDB	PLAN NAME	The user generated name of a PLAN.	VARCHAR(40)	PLAN
MIDB	OB_TYPE	Indicates the type of Order-of-Battle to which a unit or equipment belongs.	4 CHAR (1)	EQP, OBS_REPORT, TGT_SYS_UNIT, UNIT
JCDB	OB_TYPE	The code that denotes the service or service affiliation type to which an ORG-TYPE belongs or is operationally responsible as it pertains to the manner of the battle mission it performs.	varchar(1)	ORGANIZATION-TYPE
JCDB	batlfld_obj_id	Unique Identifier for a Battlefield Object	4 INTEGER	Battlefield-Association-Group Battlefield-Association-Group-Columns Battlefield-Object-Definition Filter-DEFINITION:
JCDB	EQUIPT_CAT_CD	The code that represents, or denotes, the class of a specific EQUIPMENT-TYPE. It serves as a category discriminator that partitions EQUIPMENT-TYPE into subtypes.	SMALLINT	EQUIPMENT-TYPE

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Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	PERCENT DAMAGED	A subjective evaluation of the fraction of a target damaged and unusable that is believed to be repairable, expressed as a percent.	tinyint, NULL	EQP_ASSESS, FAC_ASSESS, OBS_REPORT, TGT_SYS_ASSESS
JCDB	PERCENT_DAMAGED	A subjective evaluation of the fraction of a FACILITY damaged and unusable that is believed to be repairable, expressed as a percent. (0-100%)	decimal(5,2)	FACILITY-OPERATIONAL-STATUS
MIDB	SYMBOL CODE	A standard scheme for symbol coding enabling the transfer, display and use of symbols and graphics among information systems, as per MIL-STD 2525A, and supported by the element AFFILIATION.	varchar(15), NULL	EQP_GEODETIC, FAC_GEODETIC, GEO_GEODETIC, _loc_coord (EQP, EVENT_LOC, FAC, FAC_ANNEX, GEO_CIRCLE, GEO_COORDS, GEO_DONUT, GEO_ELLIPSE, GEO_FAN, NET_NODE, TGT_DTL, TRACK_LOC, UNIT, UNIT_ALT_LOC, IND_ADDRESS, OBS)
JCDB	SYMBOL_CD	The code that denotes the class of a FEATURE-SYMBOL.	varchar(15)	TRGT_SYMBOL_CODE
JCDB	SYMBOL_CD	The applied name for a symbol_instance	varchar(15)	ORG_TYPE_SYMBOL
JCDB	SYMBOL_CD	The code that denotes the class of a FEATURE-SYMBOL.	varchar(15)	FEAT_SYMBOL_CODE
JCDB	gsd_id	GSD code from Mil Std 2525B.	varchar(15)	symbol_instance
JCDB	SYMBOL_CD	The applied name for a symbol_instance	varchar(15)	ORG_TYPE_SYMBOL
JCDB	FAC_SYMBOL_ID	The identifier that represents a FACILITY TYPE symbol	varchar(15)	FACILITY_TYPE
MIDB	ACFT MODE	Aircraft mode (sensor used to present information to the weapon delivery computer). Applicable only with unguided weapon delivery accuracies	varchar(12), NULL	TGT_DTL_AIMPT_WPN
JCDB	ACFT_MODE	Aircraft mode (sensor used to present information to the weapon delivery computer). Applicable only with unguided weapon delivery accuracies.	varchar(12)	AIRCRAFT-TYPE

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Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
-HEADER- MIDB	1. Element Name: CONDITION_AVAIL	2. Attribute Name: CONDITION AVAIL	3. Definition: Availability of the entity relative to its condition. Indicates the reason the entity is not fully operational.	4. Data Type: char(4), NULL
-HEADER- JCDB	ELEMENT NAME: Battlefield Object Identifier	ATTRIBUTE NAME: AVAILABILITY_CD	DEFINITION: The code that denotes the current operational status of an object	DATA TYPE: varchar(4) varchar(4) varchar(4)
-HEADER- JCDB	ELEMENT NAME: FACILITY-OPERATIONAL-STATUS condition code ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific FACILITY. The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action. (MIDB)	DATA TYPE: varchar(4)	NULL OPTION
HEADER- JCDB	ELEMENT NAME: MATERIEL-OPERATIONAL-STATUS condition code ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific MATERIEL as a representation of the physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: CONDITION ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the operational state of an ORGANIZATION.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION overall condition code ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the distribution state of a database record.	DATA TYPE: varchar(4)	NULL OPTION

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
-HEADER- MIDB	1. Element Name: DAMAGE_CRITERION 2. Attribute Name: DAMAGE CRITERION	3. Definition: The level of damage to a particular target desired or required to accomplish a mission objective.	4. Data Type: varchar(12), NULL	5. Permissible Values: CON_DAMAGE_CRITERION
-HEADER- JCDB ATTRIBUTE NAME: EFFECTS_PERCENT	PHYSICAL NAME: EFFECTS_PERCENT	DEFINITION: This attribute defines the percentage of effects required to be achieved on a mission.	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: DISPNSR_PAT_WIDTH 2. Attribute Name: DISPNSR PAT WIDTH	3. Definition: The width of the rectangular cluster weapon pattern in the ground plane perpendicular to the TERMINAL_IMPACT_AZIMUTH (or PATTERN_AZIMUTH). This value is generally represented in feet.	4. Data Type: int, NULL	5. Permissible Values: RUL_NUM_IN_POS_9999
-HEADER- JCDB ATTRIBUTE NAME: MUNITION pattern width dimension	PHYSICAL NAME: MUNTN_PATRN_WDTH	DEFINITION: The dimension of the linear measurement of the shortest dimension of the dispersal area resultant from the explosion of a specific MUNITION. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

	1. Element Name: DMPI_ID 2. Attribute Name: DMPI ID	3. Definition: A unique identifier for a Desired Mean Point of Impact (DMPI).	4. Data Type: varchar(30), NULL	5. Permissible Values: RUL_FREE_TEXT_EXP
-HEADER- MIDB				
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED- TARGET-LOC- PT-REF index	PHYSICAL NAME: STRGT_LOC_PT_INDX	DEFINITION: The unique identifier that represents a specific SUPPORTED_TARGET LOCATION-POINT	DATA TYPE: serial	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED- TARGET index	PHYSICAL NAME: SUPRTD_TARGET_INDX	DEFINITION: The unique identifier that represents a specific SUPPORTED_TARGET	DATA TYPE: integer integer serial integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED- TARGET- LOC_index	PHYSICAL NAME: SUP_TRGT_LOC_INDX	DEFINITION: The unique identifier that represents a specific SUPPORTED_TARGET LOCATION	DATA TYPE: serial integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: ENEMY- MATERIEL index	PHYSICAL NAME: ENEMY_MAT_INDX	DEFINITION: The unique identifier that represents a specific ENEMY-MATERIEL	DATA TYPE: integer integer integer integer integer integer integer serial integer integer	NULL OPTION
-HEADER- MIDB	1. Element Name: DMPI_IMPACT_ANGLE 2. Attribute Name: DMPI IMPACT ANGLE	3. Definition: DMPI Impact Angle (deg), range -90 to 90 degrees, resolution of 1 degree, or 'Don't Care.' The DMPI Impact Angle is the desired angle, relative to horizontal, at which the weapon is to impact the DMPI. An angle of 0 degrees means the weapon is to fly parallel to the ground as it strikes the DMPI, and an angle of 90 degrees means the weapon is to fly straight down onto the DMPI. An angle of -90 degrees means that the weapon is to strike the target from below (e.g., submarine-launched).	4. Data Type: float, NULL	5. Permissible Values: RUL_DEGREES_90_90
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED- TARGET bearing angle	PHYSICAL NAME: TARGET_BEARING	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific SUPPORTED-TARGET at a specific LOCATION. Unit of Measure = degrees	DATA TYPE: numeric(5,2)	NULL OPTION

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
-HEADER- MIDB	1. Element Name: ELEVATION_MSL 2. Attribute Name: ELEVATION MSL	3. Definition: Ground elevation of the geographic coordinates referenced to (above or below) Mean Sea Level (MSL) vertical datum. This field is supported by: ELEVATION_MSL_ACC + ELEVATION_MSL_CONF_LVL + ELEVATION_MSL_DERIV + ELEVATION_MSL_DERIV_ACC + ELEVATION_MSL_DERIV_ACC_UM + ELEVATION_MSL_UM + GEOIDAL_MSL_SEPARATION + GEOIDAL_MSL_SEPARATION_UM.	4. Data Type: float, NULL	5. Permissible Values:
-HEADER- JCDB ATTRIBUTE NAME: FEATURE- LOCATION- POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from MSL (Mean Sea Level) specified by the FEATURE-LOCATION-POINT elevation category code for a specific FEATURE-LOCATION-POINT. Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: MATERIEL- POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from mean sea level, of a specified MATERIEL-POINT. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ERROR_PROB_RANGE 2. Attribute Name: ERROR PROB RANGE	3. Definition: The Range Error Probable (REP) is an error associated with the delivery of munitions on a target. It is a value equal to half the distance between two imaginary lines drawn perpendicular to the aircraft approach line which themselves are equidistant from the desired mean point of impact (DMPI), and between which contain 25% of the impact points of independently aimed weapons. Typically indicated in feet or meters in the ground plane (tangential to the ground) or normal plane (perpendicular to the line-of-sight passing through the target). Also see (ERROR_PROB_DEFLECTION (DEP). Together, REP and DEP describe the length and width of a rectangle containing half of the impact points of independently aimed weapons.	4. Data Type: float, NULL	5. Permissible Values: RUL_NUM_FL_POS_2000
-HEADER- JCDB ATTRIBUTE NAME: WEAPON-TYPE accuracy dimension	PHYSICAL NAME: WPN_ACCURACY_DIM	DEFINITION: The dimension of the tolerance of error for a specific WEAPON-TYPE. (0-100%)	DATA TYPE: decimal(5,2)	NULL OPTION
-HEADER- MIDB	1. Element Name: HARDNESS 2. Attribute Name: HARDNESS	3. Definition: A general assessment of the hardness or physical vulnerability of a target.	4. Data Type: char(1), NULL	5. Permissible Values: CON_HARDNESS
-HEADER- JCDB ATTRIBUTE NAME: FAC_DESIGN	PHYSICAL NAME: FAC_DESIGN	DEFINITION: The code that indicates the plan, layout, or arrangement of the FACILITY as it relates to the entity's physical vulnerability	DATA TYPE: varchar(4)	NULL OPTION

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Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
-HEADER- MIDB	1. Element Name: OBS_CONDITION 2. Attribute Name: OBS CONDITION	3. Definition: The physical manner of being or state of existence of the entity. A physical condition which must be considered in the determination of a course of action. This element has been created to temporarily support USMTF - Operational Status information. It contains MIDB "CONDITION" values primarily, with some "OPER_STAT" and "ACTIVITY" values as well.	4. Data Type: char(4), NULL	5. Permissible Values: CON_OBS_CONDITION
-HEADER- JCDB ATTRIBUTE NAME: FACILITY-OPERATIONAL-STATUS condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific FACILITY. The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action. (MIDB)	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: MATERIEL-OPERATIONAL-STATUS condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific MATERIEL as a representation of the physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: CONDITION	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the operational state of an ORGANIZATION.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION overall condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the distribution state of a database record.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- MIDB	1. Element Name: PERCENT_DAMAGED 2. Attribute Name: PERCENT DAMAGED	3. Definition: A subjective evaluation of the fraction of a target damaged and unusable that is believed to be repairable, expressed as a percent.	4. Data Type: tinyint, NULL	5. Permissible Values: RUL_PERCENT
-HEADER- JCDB	ELEMENT NAME: FACILITY-OPERATIONAL-STATUS damaged percent quantity ATTRIBUTE NAME: PERCENT_DAMAGED	DEFINITION: A subjective evaluation of the fraction of a FACILITY damaged and unusable that is believed to be repairable, expressed as a percent. (0-100%)	DATA TYPE: decimal(5,2) NOPTIONS:NULL	TABLES: FACILITY-OPERATIONAL-STATUS

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Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
-HEADER-MIDB	1. Element Name: EVAL 2. Attribute Name: EVAL	3. Definition: Reliability/degree of confidence that the analyst has assigned to the data within this record.	4. Data Type: char(1), NOT NULL	5. Permissible Values: CON_EVAL
-HEADER-JCDB ATTRIBUTE NAME: SUPPORTED-TARGET source reliability code	PHYSICAL NAME: SOURCE_REL_CD	DEFINITION: The code that denotes the reliability factor of the source of identification of a SUPPORTED-TARGET.	DATA TYPE: smallint	NULL OPTION
-HEADER-MIDB	1. Element Name: TGT_LIST_SK 2. Attribute Name: Not displayed.	3. Definition: The surrogate key, established at row creation time, uniquely identifies each row of TARGET LIST data.	4. Data Type: numeric(14,0), NOT NULL	5. Permissible Values:
-HEADER-JCDB	ELEMENT NAME: CANDIDATE-TARGET-ASSOCIATION index ATTRIBUTE NAME: CTRGT_ASSC_INDX	DEFINITION The specific identifier for a CANDIDATE-TARGET-ASSOCIATION. A DBMS generated key.	DATA TYPE: serial NOPTIONS:NOT NULL	TABLES: CANDIDATE-TARGET-ASSOCIATION
-HEADER-JCDB	ELEMENT NAME: FACILITY intelligence key code ELEMENT NAME: FACILITY intelligence key code	DEFINITION: The unique surrogate key which identifies a specific FACILITY as ENEMY. The surrogate key, established at row creation time, uniquely identifies each row of TARGET SYSTEM FACILITY data. Permissible Values: SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	DATA TYPE: varchar(14) NOPTIONS:NULL	TABLES: FACILITY
-HEADER-MIDB	1. Element Name: TGT_RADIUS 2. Attribute Name: TGT RADIUS	3. Definition: Radius of the smallest circle encompassing 95% of a facility. Radius is the length of a straight line extending from the center of a circle or a sphere to the circumference or surface. The formula used to convert length and width to TGT_RADIUS is as follows: (LENGTH (2.2) + WIDTH (9.7)) / 1852.	4. Data Type: float, NULL	5. Permissible Values: RUL_NUM_FL_POS
-HEADER-JCDB	ELEMENT NAME: CANDIDATE-TARGET radius dimension ATTRIBUTE NAME: CTRGT_RADIUS_DIM_m	DEFINITION: Radius of the smallest circle encompassing 95% of a CANDIDATE-TARGET. Radius is the length of a straight line extending from the center of a circle or a sphere to the circumference or surface. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL	TABLES: CANDIDATE-TARGET

	1. Element Name / Physical Name	2. Attribute Name / Definition	3. Definition	4. Data Type	Null Option
-HEADER- MIDB	1. Element Name: GRAPHIC_AGENCY	2. Attribute Name: GRAPHIC AGENCY	3. Definition: Indicates the Agency which produced the graphic.	4. Data Type: varchar(15)	
-HEADER- JCDB ATTRIBUTE NAME: AIR-ROUTE-SEGMENT bidirectional indicator code	PHYSICAL NAME: AIR_TRFC_CNTRL_CD	DEFINITION: The code that denotes the agency providing air traffic services for an AIR-ROUTE-SEGMENT.		DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: GRAPHIC_ED_DATE 2. Attribute Name: GRAPHIC ED DATE	3. Definition: The edition date of the map graphic.		4. Data Type: varchar(8)	Null in table(s): EQP, EVENT_LOC, FAC_ANNEX, GEO, IND_ADDRESS, OBS, TGT_DTL, TRACK_LOC, UNIT, UNIT_ALT_LOC
-HEADER- JCDB ATTRIBUTE NAME: MAP edition identifier	PHYSICAL NAME: MAP_EDITION_ID	DEFINITION: The unique identifier which indicates the edition of a particular MAP document.		DATA TYPE: varchar(15)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: PLAN-OVERLAY identifier	PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.		DATA TYPE: serial	NULL OPTION
-HEADER- MIDB	1. Element Name: GRAPHIC_SCALE	2. Attribute Name: GRAPHIC SCALE	3. Definition: The scale of the referenced graphic.	4. Data Type: smallint	
-HEADER- JCDB ATTRIBUTE NAME: MAP scale code	PHYSICAL NAME: MAP_SCALE_CD	DEFINITION: The code that denotes the MAP to earth dimension scale.		DATA TYPE: smallint	NULL OPTION

EADER- MIDB	1. Element Name: EMITTER_ID 2. Attribute Name: EMITTER ID	3. Definition: Unique identifier of an emitter.	4. Data Type: int, NULL	5. Permissible Values: RUL_NUM_IN_POS
-HEADER- JCDB	ELEMENT NAME: CANDIDATE-TARGET hultec number ATTRIBUTE NAME: HULTEC_NUMBER	DEFINITION: The Hull-To-Emitter Correlation (HULTEC) numbering system number for a specific CANDIDATE-TARGET.	DATA TYPE: varchar(13) NOPTIONS:NULL	TABLES: CANDIDATE-TARGET
-HEADER- MIDB	1. Element Name: ILAT 2. Attribute Name: Not displayed.	3. Definition: The geocentric latitude of the collector. The range of values for this field is from -324,000,000 to 324,000,000, representing (90 degrees south to 90 degrees north).	4. Data Type: int, NULL	5. Permissible Values: RUL_ILAT
-HEADER- JCDB ATTRIBUTE NAME: lat	PHYSICAL NAME: lat	DEFINITION: The latitude of a specific site or location as specified in the Gazetteer.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION
-HEADER- MIDB	1. Element Name: MIL_GRID_SYS 2. Attribute Name: MIL GRID SYS	3. Definition: Indicates the grid system used in the development of the MIL_GRID coordinates.	4. Data Type: char(3), NULL	5. Permissible Values: CON_MIL_GRID_SYS
-HEADER- JCDB ATTRIBUTE NAME: MAP grid system use code	PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION

B. TRACK EQUIVALENT ATTRIBUTES

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	ALTITUDE	The elevation of the object above the earth's surface	FLOAT	
JCDB	MET_ALTITUDE_DM_m	The altitude of an airborne object above ground level which has a specific corresponding POINT location. Unit of Measure = Feet. Altitude applies to objects capable of airborne flight. Elevation applies to fixed objects.	integer	METEOROLOGIC-ALTITUDE
-HEADER- MIDB	1. Element Name: ELEVATION_MSL 2. Attribute Name: ELEVATION MSL	3. Definition: Ground elevation of the geographic coordinates referenced to (above or below) Mean Sea Level (MSL) vertical datum. This field is supported by: ELEVATION_MSL_ACC + ELEVATION_MSL_CONF_LVL + ELEVATION_MSL_DERIV + ELEVATION_MSL_DERIV_ACC + ELEVATION_MSL_DERIV_ACC_UM + ELEVATION_MSL_UM + GEOIDAL_MSL_SEPARATION + GEOIDAL_MSL_SEPARATION_UM.	4. Data Type: float, NULL	5. Permissible Values:
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from MSL (Mean Sea Level) specified by the FEATURE-LOCATION-POINT elevation category code for a specific FEATURE-LOCATION-POINT. Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: MATERIEL-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from mean sea level, of a specified MATERIEL-POINT. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

-HEADER-MIDB	1. Element Name: GRAPHIC_AGENCY 2. Attribute Name: GRAPHIC AGENCY	3. Definition: Indicates the Agency which produced the graphic.	4. Data Type: varchar(15)	Null in table(s): EQP, EVENT_LOC, FAC_ANNEX, GEO, IND_ADDRESS, OBS, TGT_DTL, TRACK_LOC, UNIT, UNIT_ALT_LOC
-HEADER-JCDB ATTRIBUTE NAME: AIR-ROUTE-SEGMENT bidirectional indicator code	PHYSICAL NAME: AIR_TRFC_CNTRL_CD	DEFINITION: The code that denotes the agency providing air traffic services for an AIR-ROUTE-SEGMENT.	DATA TYPE: smallint	NULL OPTION
-HEADER-MIDB	1. Element Name: GRAPHIC_ED_NUM	2. Attribute Name: GRAPHIC ED NUM	3. Definition: The edition number of the map graphic series.	4. Data Type: smallint
-HEADER-JCDB ATTRIBUTE NAME: MAP edition identifier	PHYSICAL NAME: MAP_EDITION_ID	DEFINITION: The unique identifier which indicates the edition of a particular MAP document.	DATA TYPE: varchar(15)	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: PLAN-OVERLAY identifier	PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial	NULL OPTION
-HEADER-MIDB	1. Element Name: GRAPHIC_SCALE	2. Attribute Name: GRAPHIC SCALE	3. Definition: The scale of the referenced graphic.	4. Data Type: smallint
	-HEADER- JCDB ATTRIBUTE NAME: MAP scale code	PHYSICAL NAME: MAP_SCALE_CD	DEFINITION: The code that denotes the MAP to earth dimension scale.	DATA TYPE: smallint

-HEADER- MIDB	1. Element Name: ILAT 2. Attribute Name: Not displayed.	3. Definition: The geocentric latitude of the collector. The range of values for this field is from -324,000,000 to 324,000,000, representing (90 degrees south to 90 degrees north).	4. Data Type: int, NULL	5. Permissible Values: RUL_ILAT
-HEADER- JCDB ATTRIBUTE NAME: lat	PHYSICAL NAME: lat	DEFINITION: The latitude of a specific site or location as specified in the Gazetteer.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION
-HEADER- MIDB	1. Element Name: MIL_GRID_SYS	2. Attribute Name: MIL GRID SYS	3. Definition: Indicates the grid system used in the development of the MIL_GRID coordinates. 4. Data Type: char(3), NULL	
-HEADER- JCDB ATTRIBUTE NAME: MAP grid system use code	PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: MSN_PRIMARY 2. Attribute Name: MSN PRIMARY	3. Definition: Indicates the principal type of mission that an entity is organized and equipped to perform.	4. Data Type: char(4), NULL	5. Permissible Values: CON_MSN
-HEADER- JCDB ATTRIBUTE NAME: MSN_CD	PHYSICAL NAME: MSN_CD	DEFINITION: The code that denotes the principal mission (MSN) of an ORGANIZATION-TYPE.	DATA TYPE: varchar(4) varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: NETWORK-NODE primary mission amplification text	PHYSICAL NAME: NETNODE_PRIM_MSN	DEFINITION: The text that describes the principal mission of a NETWORK-NODE.	DATA TYPE: varchar(254)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: MSN_SPECIALTY	PHYSICAL NAME: MSN_SPECIALTY	DEFINITION: The specific type(s) of mission that an ORGANIZATION-TYPE performs.	DATA TYPE: varchar(4) varchar(4)	NULL OPTION

-HEADER-MIDB	1. Element Name: MSN_PRIMARY_SPECIALTY 2. Attribute Name: MSN PRIMARY SPECIALTY	3. Definition: Indicates the principal specialty type of mission that an entity is organized and equipped to perform.	4. Data Type: char(4), NULL	5. Permissible Values: CON_MSN_SPECIALTY
-HEADER-JCDB ATTRIBUTE NAME: NETWORK-NODE primary mission amplification text	PHYSICAL NAME: NETNODE_PRIM_MSN	DEFINITION: The text that describes the principal mission of a NETWORK-NODE.	DATA TYPE: varchar(254)	NULL OPTION
-HEADER-MIDB	1. Element Name: OSUFFIX_REF 2. Attribute Name: OSUFFIX REF	3. Definition: Indicates a reference to an OSUFFIX that uniquely identifies a facility or demographic area in conjunction with a BE_NUMBER.	4. Data Type: char(5), NULL	5. Permissible Values: RUL_FREE_TEXT_EXP
-HEADER-JCDB ATTRIBUTE NAME: FACILITY BEO suffix identifier	PHYSICAL NAME: OSUFFIX	DEFINITION: The identifier which denotes the BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY that carries the "O" suffix. Uniquely identifies a facility or demographic area in conjunction with a BE_NUMBER. Permissible Values: [A-Z][A-Z] Pos. 1-2. SYSTEM ASSIGNED RECORD_ORIGINATOR. The organization creating the facility or demographic area. DIA installation records created prior to IDB generation of OSUFFIX contain DD. [0-9][0-9][0-9] Pos. 3-5 A one-up number. ASAS-WRITE-DELETE-	DATA TYPE: varchar(5)	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: SUPPORTED-TARGET midb O-suffix identifier	PHYSICAL NAME: MIDB_O_SUFFIX	DEFINITION: The identifier which denotes the BASIC ENCYCLOPEDIA (BE) number for a specific SUPPORTED-TARGET that carries the "O" suffix. Uniquely identifies a facility or demographic area in conjunction with a BE_NUMBER. Permissible Values: [A-Z][A-Z] Pos. 1-2. SYSTEM ASSIGNED RECORD_ORIGINATOR. The organization creating the facility or demographic area. DIA installation records created prior to IDB generation of OSUFFIX contain DD. [0-9][0-9][0-9] Pos. 3-5 A one-up number.	DATA TYPE: varchar(5)	NULL OPTION

C. TARGET EQUIVALENT ATTRIBUTES:

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	ACFT_ADD_FACTORS	Additional Factors Affecting Aircraft Accuracy. Applicable only with unguided weapon delivery accuracie	CHAR(6)	
JCDB	ACFT_MODE	Aircraft mode (sensor used to present information to the weapon delivery computer). Applicable only with unguided weapon delivery accuracies.	varchar(12)	AIRCRAFT-TYPE
MIDB	COMBAT_EFFECTIVENESS	A measure of the ability of a unit to wage war, expressed as a percentage; reflects an assessment of both the unit's personnel strength and it current (versus nominal) equipment strength, both in context of the unit's primary mission. For example, a SAM battery with all its people but no equipment has a STRENGTH = 100 but EFFECTIVENESS = 0, since its mission is to fire missles. An infantry unit with all its people but no equipment would have an EFFECTIVENESS > 0.	TINYINT	
JCDB	ORG_COMBAT_INT_CD	The code that denotes the combat intensity of an ORGANIZATION-OPERATIONAL-STATUS.	SMALLINT	ORGANIZATION-OPERATIONAL-STATUS
JCDB	ORG_COMBAT_EFF_CD	The code that represents the current combat effectiveness for a specific ORGANIZATION	INTEGER	ORGANIZATION-OPERATIONAL-STATUS
JCDB	ORG_CBAT_REDINESS	The code that denotes a commanders assessment of an organization's readiness to perform combat missions.	SMALLINT	ORGANIZATION-OPERATIONAL-STATUS
JCDB	COMBAT_STRENGTH	The value that represents the percentage of an ENEMY ORGANIZATION's full strength	INTEGER	ENEMY-ORGANIZATION-OPERATIONAL-STATUS
MIDB	STRENGTH_MAX	When strength is represented as a range, this field indicates the maximum design or inherent strength of the material in the layer.	FLOAT	
JCDB	ORG_COMBAT_INT_CD	The code that denotes the combat intensity of an ORGANIZATION-OPERATIONAL-STATUS.	SMALLINT	ORGANIZATION-OPERATIONAL-STATUS
MIDB	COMBAT STRENGTH	A measure of the personnel strength of a unit, expressed as a percentage of the estimate of its current strength compared to its established or projected nominal strength.	TINYINT	
JCDB	COMBAT_STRENGTH	The value that represents the percentage of an ENEMY ORGANIZATION's full strength	INTEGER	ENEMY-ORGANIZATION-OPERATIONAL-STATUS
MIDB	CONDTION	The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action.	CHAR(4)	
JCDB	CONDITION	The code that denotes the operational state of an ORGANIZATION.	VARCHAR(4)	ENEMY_MAT_OPL_STAT
JCDB	CONDITION	The code that denotes the general operating condition of a specific FACILITY. The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action. (MIDB)	varchar(4)	FACILITY-OPERATIONAL-STATUS

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Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	COORD_ROA	Indicates the radius of the circle that the coordinate is contained within as a measure of confidence.	FLOAT	
JCDB	COORD_ROA	The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	NUMERIC(6,1)	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY
MIDB	ECHELON	Organizational level of the unit	CHAR(4)	
JCDB	ECHELON_CD	The code that denotes a class to which a unit belongs that is defined as the lowest structural level or point at which organizational control or authority of an ORGANIZATION-TYPE is concentrated	SMALLINT	ORGANIZATION-TYPE
MIDB	TGT_SYS_FAC_SK	The surrogate key, established at row creation time, uniquely identifies each row of TARGET SYSTEM FACILITY data.	NUMERIC(14,0)	
JCDB	FAC_SK	The unique surrogate key which identifies a specific FACILITY as ENEMY. The surrogate key, established at row creation time, uniquely identifies each row of TARGET SYSTEM FACILITY data. Permissible Values: SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	VARCHAR(14)	FACILITY
MIDB	MSN_ID	A unique identifier for the mission.	VARCHAR(15)	
JCDB	PLAN_INDX	The unique user generated identifier that represents a scheme for achieving an end over time. (As a minimum, the identifier will contain the Unit Name/Number) for which the plan is being developed. as well as an abbreviated PLAN NAME: DA	8 INTEGER SERIAL 9 INTEGER	AIR_MISSION_TARGETS ANNEX COMMAND-SI
JCDB	PLAN NAME	The user generated name of a PLAN.	VARCHAR(40)	PLAN

MIDB	OB_TYPE	Indicates the type of Order-of-Battle to which a unit or equipment belongs.	4 CHAR (1)	EQP, OBS_REPORT, TGT_SYS_UNIT, UNIT
JCDB	OB_TYPE	The code that denotes the service or service affiliation type to which an ORG-TYPE belongs or is operationally responsible as it pertains to the manner of the battle mission it performs.	varchar(1)	ORGANIZATION-TYPE
JCDB	batlfld_obj_id	Unique Identifier for a Battlefield Object	4 INTEGER	Battlefield-Association-Group Battlefield-Association-Group-Columns Battlefield-Object-Definition Filter-DEFINITION:
JCDB	EQUIPT_CAT_CD	The code that represents, or denotes, the class of a specific EQUIPMENT-TYPE. It serves as a category discriminator that partitions EQUIPMENT-TYPE into subtypes.	SMALLINT	EQUIPMENT-TYPE
MIDB	PERCENT DAMAGED	A subjective evaluation of the fraction of a target damaged and unusable that is believed to be repairable, expressed as a percent.	tinyint, NULL	EQP_ASSESS, FAC_ASSESS, OBS_REPORT, TGT_SYS_ASSESS
JCDB	PERCENT_DAMAGED	A subjective evaluation of the fraction of a FACILITY damaged and unusable that is believed to be repairable, expressed as a percent. (0-100%)	decimal(5,2)	FACILITY-OPERATIONAL-STATUS
MIDB	SYMBOL CODE	A standard scheme for symbol coding enabling the transfer, display and use of symbols and graphics among information systems, as per MIL-STD 2525A, and supported by the element AFFILIATION.	varchar(15), NULL	EQP_GEODETIC, FAC_GEODETIC, GEO_GEODETIC, _loc_coord (EQP, EVENT_LOC, FAC, FAC_ANNEX, GEO_CIRCLE, GEO_COORDS, GEO_DONUT, GEO_ELLIPSE, GEO_FAN, NET_NODE, TGT_DTL, TRACK_LOC, UNIT, UNIT_ALT_LOC, IND_ADDRESS, OBS)
JCDB	SYMBOL_CD	The code that denotes the class of a FEATURE-SYMBOL.	varchar(15)	TRGT_SYMBOL_CODE
JCDB	SYMBOL_CD	The applied name for a symbol_instance	varchar(15)	ORG_TYPE_SYMBOL
JCDB	SYMBOL_CD	The code that denotes the class of a FEATURE-SYMBOL.	varchar(15)	FEAT_SYMBOL_CODE
JCDB	gsd_id	GSD code from Mil Std 2525B.	varchar(15)	symbol_instance
JCDB	SYMBOL_CD	The applied name for a symbol_instance	varchar(15)	ORG_TYPE_SYMBOL
JCDB	FAC_SYMBOL_ID	The identifier that represents a FACILITY TYPE symbol	varchar(15)	FACILITY_TYPE

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	ACFT MODE	Aircraft mode (sensor used to present information to the weapon delivery computer). Applicable only with unguided weapon delivery accuracies	varchar(12), NULL	TGT_DTL_AIMPT_WPN
JCDB	ACFT_MODE	Aircraft mode (sensor used to present information to the weapon delivery computer). Applicable only with unguided weapon delivery accuracies.	varchar(12)	AIRCRAFT-TYPE
-HEADER- MIDB	1. Element Name: CONDITION_AVAIL 2. Attribute Name: CONDITION AVAIL	3. Definition: Availability of the entity relative to its condition. Indicates the reason the entity is not fully operational.	4. Data Type: char(4), NULL	5. Permissible Values: CON_CONDITION_AVAIL
-HEADER- JCDB	ELEMENT NAME: Battlefield Object Identifier ATTRIBUTE NAME: AVAILABILITY_CD	DEFINITION: The code that denotes the current operational status of an object	DATA TYPE: varchar(4) varchar(4) varchar(4)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: FACILITY-OPERATIONAL-STATUS condition code ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific FACILITY. The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action. (MIDB)	DATA TYPE: varchar(4)	NULL OPTION
HEADER- JCDB	ELEMENT NAME: MATERIEL-OPERATIONAL-STATUS condition code ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific MATERIEL as a representation of the physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: CONDITION ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the operational state of an ORGANIZATION.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION overall condition code ATTRIBUTE NAME: CONDITION	DEFINITION: The code that denotes the distribution state of a database record.	DATA TYPE: varchar(4)	NULL OPTION

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
-HEADER- MIDB	1. Element Name: DAMAGE_CRITERION 2. Attribute Name: DAMAGE CRITERION	3. Definition: The level of damage to a particular target desired or required to accomplish a mission objective.	4. Data Type: varchar(12), NULL	5. Permissible Values: CON_DAMAGE_CRITERION
-HEADER- JCDB ATTRIBUTE NAME: EFFECTS_PERCENT	PHYSICAL NAME: EFFECTS_PERCENT	DEFINITION: This attribute defines the percentage of effects required to be achieved on a mission.	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: DISPNSR_PAT_WIDTH 2. Attribute Name: DISPNSR PAT WIDTH	3. Definition: The width of the rectangular cluster weapon pattern in the ground plane perpendicular to the TERMINAL_IMPACT_AZIMUTH (or PATTERN_AZIMUTH). This value is generally represented in feet.	4. Data Type: int, NULL	5. Permissible Values: RUL_NUM_IN_POS_9999
-HEADER- JCDB ATTRIBUTE NAME: MUNITION pattern width dimension	PHYSICAL NAME: MUNTN_PATRN_WDTH	DEFINITION: The dimension of the linear measurement of the shortest dimension of the dispersal area resultant from the explosion of a specific MUNITION. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

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	1. Element Name: DMPI_ID 2. Attribute Name: DMPI ID	3. Definition: A unique identifier for a Desired Mean Point of Impact (DMPI).	4. Data Type: varchar(30), NULL	5. Permissible Values: RUL_FREE_TEXT_EXP
-HEADER-MIDB				
-HEADER-JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOC-PT-REF index	PHYSICAL NAME: STRGT_LOC_PT_INDX	DEFINITION: The unique identifier that represents a specific SUPPORTED_TARGET LOCATION-POINT	DATA TYPE: serial	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: SUPPORTED-TARGET index	PHYSICAL NAME: SUPRTD_TARGET_INDX	DEFINITION: The unique identifier that represents a specific SUPPORTED_TARGET	DATA TYPE: integer integer serial integer	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOC_index	PHYSICAL NAME: SUP_TRGT_LOC_INDX	DEFINITION: The unique identifier that represents a specific SUPPORTED_TARGET LOCATION	DATA TYPE: serial integer	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: ENEMY-MATERIEL index	PHYSICAL NAME: ENEMY_MAT_INDX	DEFINITION: The unique identifier that represents a specific ENEMY-MATERIEL	DATA TYPE: integer integer integer integer integer integer integer serial integer integer	NULL OPTION

	1	3	4	5
-HEADER- MIDB	1. Element Name: DMPI_IMPACT_ANGLE 2. Attribute Name: DMPI IMPACT ANGLE	3. Definition: DMPI Impact Angle (deg), range -90 to 90 degrees, resolution of 1 degree, or 'Don't Care.' The DMPI Impact Angle is the desired angle, relative to horizontal, at which the weapon is to impact the DMPI. An angle of 0 degrees means the weapon is to fly parallel to the ground as it strikes the DMPI, and an angle of 90 degrees means the weapon is to fly straight down onto the DMPI. An angle of -90 degrees means that the weapon is to strike the target from below (e.g., submarine-launched).	4. Data Type: float, NULL	5. Permissible Values: RUL_DEGREES_90_90
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET bearing angle	PHYSICAL NAME: TARGET_BEARING	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific SUPPORTED-TARGET at a specific LOCATION. Unit of Measure = degrees	DATA TYPE: numeric(5,2)	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_MSL 2. Attribute Name: ELEVATION MSL	3. Definition: Ground elevation of the geographic coordinates referenced to (above or below) Mean Sea Level (MSL) vertical datum. This field is supported by: ELEVATION_MSL_ACC + ELEVATION_MSL_CONF_LVL + ELEVATION_MSL_DERIV + ELEVATION_MSL_DERIV_ACC + ELEVATION_MSL_DERIV_ACC_UM + ELEVATION_MSL_UM + GEOIDAL_MSL_SEPARATION + GEOIDAL_MSL_SEPARATION_UM.	4. Data Type: float, NULL	5. Permissible Values:
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from MSL (Mean Sea Level) specified by the FEATURE-LOCATION-POINT elevation category code for a specific FEATURE-LOCATION-POINT. Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: MATERIEL-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from mean sea level, of a specified MATERIEL-POINT. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ERROR_PROB_RANGE 2. Attribute Name: ERROR PROB RANGE	3. Definition: The Range Error Probable (REP) is an error associated with the delivery of munitions on a target. It is a value equal to half the distance between two imaginary lines drawn perpendicular to the aircraft approach line which themselves are equidistant from the desired mean point of impact (DMPI), and between which contain 25% of the impact points of independently aimed weapons. Typically indicated in feet or meters in the ground plane (tangential to the ground) or normal plane (perpendicular to the line-of-sight passing through the target). Also see (ERROR_PROB_DEFLECTION (DEP). Together, REP and DEP describe the length and width of a rectangle containing half of the impact points of independently aimed weapons.	4. Data Type: float, NULL	5. Permissible Values: RUL_NUM_FL_POS_2000
-HEADER- JCDB ATTRIBUTE NAME: WEAPON-TYPE accuracy dimension	PHYSICAL NAME: WPN_ACCURACY_DIM	DEFINITION: The dimension of the tolerance of error for a specific WEAPON-TYPE. (0-100%)	DATA TYPE: decimal(5,2)	NULL OPTION

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	1. Element Name:	3. Definition:	4. Data Type:	5. Permissible Values:
-HEADER-MIDB	HARDNESS 2. Attribute Name: HARDNESS	3. Definition: A general assessment of the hardness or physical vulnerability of a target.	char(1), NULL	CON_HARDNESS
`-HEADER-JCDB	ATTRIBUTE NAME: FAC_DESIGN PHYSICAL NAME: FAC_DESIGN	DEFINITION: The code that indicates the plan, layout, or arrangement of the FACILITY as it relates to the entity's physical vulnerability	DATA TYPE: varchar(4)	NULL OPTION
-HEADER-MIDB	1. Element Name: OBS_CONDITION 2. Attribute Name: OBS CONDITION	3. Definition: The physical manner of being or state of existence of the entity. A physical condition which must be considered in the determination of a course of action. This element has been created to temporarily support USMTF - Operational Status information. It contains MIDB "CONDITION" values primarily, with some "OPER_STAT" and "ACTIVITY" values as well.	4. Data Type: char(4), NULL	5. Permissible Values: CON_OBS_CONDITION
-HEADER-JCDB ATTRIBUTE NAME: FACILITY-OPERATIONAL-STATUS condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific FACILITY. The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action. (MIDB)	DATA TYPE: varchar(4)	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: MATERIEL-OPERATIONAL-STATUS condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific MATERIEL as a representation of the physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: CONDITION	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the operational state of an ORGANIZATION.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER-JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION overall condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the distribution state of a database record.	DATA TYPE: varchar(4)	NULL OPTION

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-HEADER-MIDB	1. Element Name: PERCENT_DAMAGED 2. Attribute Name: PERCENT DAMAGED	3. Definition: A subjective evaluation of the fraction of a target damaged and unusable that is believed to be repairable, expressed as a percent.	4. Data Type: tinyint, NULL	5. Permissible Values: RUL_PERCENT
-HEADER-JCDB	ELEMENT NAME: FACILITY-OPERATIONAL-STATUS damaged percent quantity ATTRIBUTE NAME: PERCENT_DAMAGED	DEFINITION: A subjective evaluation of the fraction of a FACILITY damaged and unusable that is believed to be repairable, expressed as a percent. (0-100%)	DATA TYPE: decimal(5,2) NOPTIONS:NULL	TABLES: FACILITY-OPERATIONAL-STATUS
-HEADER-MIDB	1. Element Name: EVAL 2. Attribute Name: EVAL	3. Definition: Reliability/degree of confidence that the analyst has assigned to the data within this record.	4. Data Type: char(1), NOT NULL	5. Permissible Values: CON_EVAL
-HEADER-JCDB ATTRIBUTE NAME: SUPPORTED-TARGET source reliability code	PHYSICAL NAME: SOURCE_REL_CD	DEFINITION: The code that denotes the reliability factor of the source of identification of a SUPPORTED-TARGET.	DATA TYPE: smallint	NULL OPTION
-HEADER-MIDB	1. Element Name: TGT_LIST_SK 2. Attribute Name: Not displayed.	3. Definition: The surrogate key, established at row creation time, uniquely identifies each row of TARGET LIST data.	4. Data Type: numeric(14,0), NOT NULL	5. Permissible Values:
-HEADER-JCDB	ELEMENT NAME: CANDIDATE-TARGET-ASSOCIATION index ATTRIBUTE NAME: CTRGT_ASSC_INDX	DEFINITION The specific identifier for a CANDIDATE-TARGET-ASSOCIATION. A DBMS generated key.	DATA TYPE: serial NOPTIONS:NOT NULL	TABLES: CANDIDATE-TARGET-ASSOCIATION
-HEADER-JCDB	ELEMENT NAME: FACILITY intelligence key code ATTRIBUTE NAME: FAC_SK	DEFINITION: The unique surrogate key which identifies a specific FACILITY as ENEMY. The surrogate key, established at row creation time, uniquely identifies each row of TARGET SYSTEM FACILITY data. Permissible Values: SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	DATA TYPE: varchar(14) NOPTIONS:NULL	TABLES: FACILITY

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Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
-HEADER- MIDB	1. Element Name: TGT_RADIUS 2. Attribute Name: TGT RADIUS	3. Definition: Radius of the smallest circle encompassing 95% of a facility. Radius is the length of a straight line extending from the center of a circle or a sphere to the circumference or surface. The formula used to convert length and width to TGT_RADIUS is as follows: (LENGTH (2.2) + WIDTH (9.7)) / 1852.	4. Data Type: float, NULL	5. Permissible Values: RUL_NUM_FL_POS
-HEADER- JCDB	ELEMENT NAME: CANDIDATE-TARGET radius dimension ATTRIBUTE NAME: CTRGT_RADIUS_DIM_m	DEFINITION: Radius of the smallest circle encompassing 95% of a CANDIDATE-TARGET. Radius is the length of a straight line extending from the center of a circle or a sphere to the circumference or surface. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL	TABLES: CANDIDATE-TARGET

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APPENDIX B.   (SIMILAR ATTRIBUTES)

A.   **OBSERVATION SIMILAR ATTRIBUTES**

Similar JCDB attributes from the observation cluster are those matches highlighted or shaded in the following tables. MIDB attributes are not highlighted.

Database	Name	Definition	Data Type	Data Table/Entity
MIDB	ACCESS	Indicates the access restrictions and/or the condition of the approach to the entity. Restrictions may be natural or seasonal, such as ICE blocked ports, or may be man made such as fences and guards.	VARCHAR (9)	
JCDB	RTE_ACCESS_CD	The code which indicates the general level of restriction or obstruction for a specific ROUTE.	SMALLINT	ROUTE
MIDB	AFFILIATION	Indicates the assessed threat of the entity. This element supports SYMBOL_CODE, as per MIL-STD 2525A.	char(1)	
JCDB	AFFILIATION_CD	The code that denotes the action or intend use, i.e., HOSTILE, FRIENDLY, SUSPECT..., of a battlefield object	3 VARCHAR(1)	ALLEGIANCE FEATURE ORGANIZATION
JCDB	ALLEGIANCE	The code that represents the current allegiance of a specific battlefield object. Though there may be some limited duplication(C2 Core 14392) (A) The coded look-up can return the varchar2 value and/or the country	5 VARCHAR(2)	ENEMY-ORGANIZATION ENEMY-PERSON ENEMY_MATERIEL FACILITY MATERIEL
MIDB	ALERT	An observation or a track may be given an alert status.	char(3), NULL	OBS, TRACK
JCDB	ORG_AD_WARNG_CD	The code that denotes the current air defense warning alert for a specific ORGANIZATION for a specific ORGANIZATION-OPERATIONAL-STATUS.	smallint	ORGANIZATION-OPERATIONAL-STATUS
JCDB	AIR_ALERT_STAT_CD	The code that denotes the alert status of AIR-ENGAGEMENT assets for an AIR-ENGAGEMENT.	smallint	AIR_ENGAGEMENT
MIDB	ALLEGIANCE	The DoD Standard Country Code designator for the country or political entity to which the entity owes its allegiance.	5 CHAR(3)	
JCDB	COUNTRY_CD or CODE	The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	2 VARCHAR(2)	COUNTRY PERSON
JCDB	COUNTRY	The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	4 VARCHAR(2)	EVENT-LOCATION FACILITY ORG-TYPE-CAPABILITY-NORM ORGANIZATION
MIDB	AOU CONTAINMENT	For the given Area of Uncertainty (AOU), what percentage of containment is being achieved.	tinyint, NULL	OBS, TRACK_LOC
JCDB	ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object, expressed in units of meters.	integer integer	ENEMY-MATERIEL-POINT
JCDB	ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ENEMY PERSON POINT	integer	ENEMY-PERSON-POINT
JCDB	ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ACTION-LOCATION. Unit of Measure = Meters	integer	EVENT-LOCATION
JCDB	ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object-POINT. Unit of Measure = Meters	integer	FACILITY-POINT
MIDB	AOU LOB ERROR	The standard deviation of the Area of Uncertainty (AOU) Line of Bearing (LOB).	float, NULL	OBS, TRACK_LOC

JCDB	ACCURACY_QTY	The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION.	integer	ENEMY-TRACK-HISTORY
JCDB	VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	integer	ENEMY-TRACK-HISTORY
JCDB	ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION. The code representing the uncertainty in the estimate of a specific FRIENDLY-ORGANIZATION-POINT.	integer integer	FRIENDLY-ORGANIZATION-POINT FRIENDLY-TRACK-HISTORY
JCDB	ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific UNPLANNED-TARGET-LOCATION. Unit of Measure = Meters	integer	SUPPORTED-TARGET-LOCATION
MIDB	AOU TYPE	The type of Area of Uncertainty (AOU). If the AOU is a Line of Bearing (LOB) then the following fields are filled in: AOU_LOB_ERROR, AZIMUTH, COORD, SEMI_MAJOR, and SEMI_UM. If the type is an Ellipse / Position or a Bearing Box, then the following fields are filled in: AOU_CONTAINMENT, AZIMUTH, COORD, SEMI_MAJOR, SEMI_MINOR and SEMI_UM.	char(3), NULL	OBS, TRACK_LOC
JCDB	HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	float	AIR-ROUTE-SEGMENT
MIDB	ASSESS DATETIME	If the ASSESS_TYPE is Battle Damage Assessment (BDA) this field will contain the Time On Target value. If the ASSESS_TYPE is Strike Assessment (SA) this field will contain the Time On Target or the observation time from the report which last caused a change.	varchar(14), NULL	EQP_ASSESS, FAC_ASSESS, TGT_DTL_ASSESS, TGT_SYS_ASSESS, UNIT_ASSESS, UNIT_STRIKE
JCDB	DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second	DOCUMENT
JCDB	TIME_ACQUIRED_DTTM	DEFINITION: This attribute defines the time the target was acquired.	DATA TYPE: datetime year to second	TARGET-ENGAGEMENT
JCDB	TIME_ON_TRGT_DTTM	DEFINITION: This attribute defines the time at which the munition must arrive on the target.	DATA TYPE: datetime year to second	TARGET-ENGAGEMENT
MIDB	AZIMUTH	The entity's orientation relative to a fixed reference direction. The horizontal angular distance from a fixed reference direction (AZIMUTH_REF) to an object or an object's orientation. This is measured clockwise in degrees. When associated with a fixed orientation for the object, values range from 0-179. When associated with an object's movement or the movement of the content's of the object, values range from 0-359, to indicate the direction of the flow or movement.	float	EQP_FORM, FAC_ANNEX, FAC_FORM, GEO_ELLIPSE, NET_LINK_FORM, OBS, TGT_DTL, TRACK_LOC
JCDB	HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	DATA TYPE: float	AIR-ROUTE-SEGMENT
JCDB	FAC_AZIMUTH	DEFINITION: The angle of rotational measurement measured clockwise from true north to the longest center line of a specific FACILITY. Degrees.	DATA TYPE: numeric(5,2)	FACILITY
MIDB	AZIMUTH REF	A fixed reference direction from which to measure AZIMUTH.	4. Structure: char(3	EQP_FORM, FAC_ANNEX, FAC_FORM, GEO_ELLIPSE, NET_LINK_FORM, OBS, TGT_DTL, TRACK_LOC
JCDB	FAC_AZIMUTH	DEFINITION: The angle of rotational measurement measured clockwise from true north to the longest center line of a specific FACILITY. Degrees.	DATA TYPE: numeric(5,2)	FACILITY

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JCDB	CTRGT_ATTITUD_mils	DEFINITION: The angle specifying the directional alignment of the major (length) axis of a rectangular CANDIDATE-TARGET. Measured clockwise from the line of true north. Unit of Measure = mils	DATA TYPE: smallint	CANDIDATE-TARGET
JCDB	FEAT_LOC_ORIENTED	DEFINITION: The angle of rotational measurement measured clockwise from true North to the FEATURE s defining parameter. (For an instance of FEATURE-LOCATION, the value of this attribute is dependent on the values of FEATURE-LOCATION-category-code and FEATURE-LOCATION-subcategory-code.) The defining parameter is the shortest side of the defining rectangle for a "subcat-code" of ELLIPTICAL-REGION or REGULAR-REGION; or the left side of the sector central angle for a "subcat-code" of FAN-AREA.	DATA TYPE: decimal(5,2) decimal(5,2)	FEAT_LOC_HISTORY FEATURE-LOCATION
MIDB	BURST STD DEV	The standard deviation of the interval between burst.	4. Structure: float, NULL	OBS
JCDB	BIOFEAT_BURSTT_QTY	DEFINITION: The numeric count of the number of bursts for the specific burst type class being reported for a BIOLOGICAL-CHEMICAL-FEATURE.	DATA TYPE: smallint	BIOLOGICAL-CHEMICAL-FEATURE
JCDB	NFEAT_BRST_TYP_QTY	DEFINITION: The numeric count of the number of bursts for the specific burst type class being reported for a NUCLEAR-FEATURE.	DATA TYPE: smallint	NUCLEAR-FEATURE
MIDB	CASE NOTATION	3. Description: Further specification of a mission.	4. Structure: varchar(15), NULL	OBS
JCDB	ACRFTBASIC_MISSION	* DEFINITION: The code that denotes the basic intended mission for an AIRCRAFT-TYPE.	DATA TYPE: smallint	AIRCRAFT-TYPE
JCDB	MISSION_TXT	* DEFINITION: The text that provides MISSION information about a specific PLAN. [This field is designed to contain unstructured information related to Paragraph 2 of a standard Army Operations Plan or Order. May be redundant with other parts of the	* DATA TYPE: varchar(254)	MISSION-COMPONENT
JCDB	MSN_CD	* DEFINITION: The code that denotes the principal mission (MSN) of an ORGANIZATION-TYPE.	* DATA TYPE: varchar(4) varchar(4)	ORG_TYPE_SYMBOL
MIDB	CC	3. Description: Country in which the geographic coordinates reside.	Verify the following: char(2) char(2), NULL	TGT_OBJ, _loc_area (EQP, EVENT_LOC, FAC, FAC_ANNEX, GEO, IND_ADDRESS, NET_NODE, OBS, TGT_DTL, TRACK_LOC, UNIT, UNIT_ALT_LOC)
JCDB	CODE COUNTRY_CD	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2)	COUNTRY PERSON
JCDB	COUNTRY	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2) varchar(2) varchar(2)	EVENT-LOCATION FACILITY ORG-TYPE-CAPABILITY-NORM ORGANIZATION
MIDB	CLUSTER ID	3. Description: Unique identifier assigned by the Jeep Sunshine Tartlet (JST) to a cluster of intercepts or individual reports and required by the cluster process to identify individual clusters.	4. Structure: varchar(15), NULL	OBS
JCDB	MSG_ORGNTR_OBJ_ID	DEFINITION: The identifier that represents a MESSAGE originator object.	DATA TYPE: varchar(15)	MESSAGE
MIDB	COLL COORD	3. Description: The coordinate of the collector of the observation.	4. Structure: varchar(21), NULL	OBS

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JCDB	EVENT-LOCATION-NAME: h a specific EVENT occurred	PHYSICAL DEF: LOC_NAME: DEFINITION: The name of the LOCATION in which	DATA TYPE: varchar(54)	EVENT-LOCATION
JCDB	FEATPT_REF_INPUT	DEFINITION: The MAC address of a using system workstation.	DATA TYPE: integer integer	FEATURE-LOCATION-POINT FEATURE-LOCATION-POINT-HISTORY
JCDB	lat	DEFINITION: The latitude of a specific site or location as specified in the Gazetteer.	DATA TYPE: numeric(8,6) numeric(8,6)	gazetteer symbol_instance_point
JCDB	loc_NAME:	DEFINITION: The name of a site or location as specified in the Gazetteer.	DATA TYPE: varchar(64)	gazetteer
MIDB	COLL_ILAT Not displayed	3. Description: The geocentric latitude of the collector. The range of values for this field is from -324,000,000 to 324,000,000, representing (90 degrees south to 90 degrees north).	4. Structure: int, NULL	OBS
JCDB	CURRENT_LATITUDE	DEFINITION: The latitude of a specific ENEMY-ORG-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)	ENEMY-ORGANIZATION-POINT ENEMY-TRACK-HISTORY
JCDB	EN_MAT_PT_LAT	The latitude of a specific MATERIEL-POINT according to WGS 84.	numeric(8,6) numeric(8,6)	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY
MIDB	COLL_ILON	3. Definition: The geocentric longitude of the collector. The range of values for this field is from -648,000,000 to 648,000,000 representing (180 degrees west to 180 degrees east).	int, NULL	OBS
	LON	DEFINITION: The longitude of a specific ACTION-LOCATION according to WGS 84.	DATA TYPE: numeric(9,6)	EVENT-LOCATION
MIDB	COLL PROJECT ID	3. Definition: This is the unique identifier assigned by the program creating this record.	4. Data Type: varchar(30), NULL	OBS
JCDB	EVENT_SK	DEFINITION: The numeric code that denotes the intelligence value of an EVENT. SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	DATA TYPE: varchar(14)	EVENT
JCDB	PERCEP_INPUT_ID	DEFINITION: The MAC address of the record creator. The unique input identifier that represents a specific PERCEPTION.	DATA TYPE: integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer	ATTRIBUTE ENTITY: ENEMY-MATERIEL-ASSOCIATION ENEMY-MATERIEL-EVENT ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY ENEMY-ORGANIZATION ENEMY-ORGANIZATION-ASSOCIATION ENEMY-ORGANIZATION-ENEMY-PERSON ENEMY-ORGANIZATION-EVENT ENEMY-ORGANIZATION-FACILITY ENEMY-ORGANIZATION-MATERIEL ENEMY-ORGANIZATION-OPERATIONAL-STATUS ENEMY-ORGANIZATION-POINT ENEMY-PERSON
JCDB	EORG_INPUT_ID	DEFINITION: The MAC address of the machine creating the record. The unique input identifier that represents a specific ENEMY-ORGANIZATION.	DATA TYPE: integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer	ATTRIBUTE ENTITY: ACTION-OBJECTIVE-ORG CANDIDATE-TARGET E_ORG_ADD ENEMY-ORG-POINT-OVERLAY ENEMY-ORGANIZATION ENEMY-ORGANIZATION-ENEMY-PERSON ATTRIBUTE ENTITY: ACTION-OBJECTIVE-ORG CANDIDATE-TARGET E_ORG_ADD ACTION-OBJECTIVE

-HEADER- MIDB	1. Element Name: CONTACT_QTY	2. Attribute Name: CONTACT QTY	3. Definition: The number of times this contact has been reported.	4. Data Type: int, NULL
-HEADER- JCDB	ELEMENT NAME: PERSON-TYPE-FEATURE-HOLDING current due in quantity	ATTRIBUTE NAME: DUEIN_CURRENT_QTY	DEFINITION: The quantity of a person-type due-in to a feature during the current reporting period of a specific PERSON-TYPE-FEATURE-HOLDING since the last PERSON-TYPE-FEATURE-HOLDING.	DATA TYPE: integer
-HEADER- JCDB	ELEMENT NAME: MATERIEL-ITEM-FEATURE-HOLDING quantity	ATTRIBUTE NAME: MATIFEAT_HLDNG_QTY	DEFINITION: The current quantity of a materiel-item at a feature during the current reporting period of a specific MATERIEL-ITEM-FEATURE-HOLDING since the last MATERIEL-ITEM-FEATURE-HOLDING.	DATA TYPE: integer
-HEADER- JCDB	ELEMENT NAME: MATERIEL-ITEM-FEATURE-HOLDING 72 hour due in quantity	ATTRIBUTE NAME: DUEIN_D3_QTY	DEFINITION: The quantity of a materiel-item due-in to a feature within 72 hours of the reporting period of a specific MATERIEL-ITEM-FEATURE-HOLDING since the last MATERIEL-ITEM-FEATURE-HOLDING.	DATA TYPE: integer
-HEADER- JCDB	ELEMENT NAME: PERSON-TYPE-ORGANIZATION-HOLDING person type currently due-in quantity	ATTRIBUTE NAME: DUEIN_CURRENT_QTY	DEFINITION: The quantity of a person-type due-in during the current reporting period of a specific PERSON-TYPE-ORGANIZATION-HOLDING since the last PERSON-TYPE-ORGANIZATION-HOLDING.	DATA TYPE: integer
-HEADER- MIDB	1. Element Name: COORD	2. Attribute Name: COORD	3. Definition: Indicates any of the magnitudes that serve to define the position of a point by reference to a fixed figure, system of lines, etc.	4. Data Type: varchar(21)
-HEADER- JCDB	ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10)
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT latitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LAT	DEFINITION: The latitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6)
-HEADER- JCDB	ELEMENT NAME: EVENT-LOCATION longitude coordinate	ATTRIBUTE NAME: LON	DEFINITION: The longitude of a specific ACTION-LOCATION according to WGS 84.	DATA TYPE: numeric(9,6)

-HEADER- JCDB	ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10)
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION-POINT index	ATTRIBUTE NAME: FEATLOC_PT_INDX	DEFINITION: The unique value assigned to represent a specific FEATURE-LOCATION-POINT for a specific FEATURE and a specific LOCATION-POINT and to distinguish it from all other FEATURE-LOCATION-POINTs for that FEATURE and that LOCATION-POINT.	DATA TYPE: serial integer
-HEADER- JCDB	ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT enclosure radius number	ATTRIBUTE NAME: FPT_COORD_ROA	DEFINITION: The quantity of the radius of the circle that the FRIENDLY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
MIDB	1. Element Name: COORD_DATETIME	2. Attribute Name: COORD DATETIME	3. Definition: The date on which a specific coordinate was reported or developed.	4. Data Type: Verify the following:
-HEADER- JCDB	ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second

-HEADER- MIDB	1. Element Name: COORD_DATUM	2. Attribute Name: COORD DATUM	3. Definition: Datum used in production of this graphic.	4. Data Type: char(3)
-HEADER- JCDB	ELEMENT NAME: Systables TabNAME: ATTRIBUTE NAME: tabNAME: DEFINITION: Table name of a table that will be used to retrieve data for the specified Battlefield Object. Table name that will be used to identify the table where the filtering condition in the SQL for retrieving data for the specified Battlefield Object.	DATA TYPE: varchar(18) varchar(18) varchar(18) NOPTIONS:NOT NULL NOT NULL NOT NULL	TABLES: Battlefield-Association-Group Battlefield-Association-Group-Columns Filter-Condition	-END-
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION maximum elevation dimension	ATTRIBUTE NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION minimum altitude	ATTRIBUTE NAME: FEAT_LOC_MIN_ALT	DEFINITION: The altitude of the lowest point of the specific FEATURE referenced to the vertical DATUM of the World Geodetic System 1984(WGS 84)	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION minimum elevation dimension	ATTRIBUTE NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	ATTRIBUTE NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: COORD_ROA_CONF_LVL	2. Attribute Name: COORD ROA CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, coordinate circle of accuracy, has been horizontally positioned to within a specified horizontal accuracy. The coordinate circle of accuracy is defined as a circle with center located at COORD with radius of COORD_ROA.	4. Data Type: tinyint, NULL

Source	Element Name	Attribute Name	Definition	Data Type	Entity
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1) numeric(6,1)	
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the ENEMY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measurement = Meters	DATA TYPE: numeric(6,1) numeric(6,1)	
-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)	
MIDB	COORD_ROA		Indicates the radius of the circle that the coordinate is contained within as a measure of confidence.	FLOAT	
JCDB	EQUIP_QTY		The number of like materiels in the radius of activity specified in the COORD_ROA column	INTEGER	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY
JCDB	COORD_ROA		The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	NUMERIC(6,1)	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY
-HEADER- MIDB	1. Element Name: CORR_DATETIME	2. Attribute Name: CORR DATETIME	3. Definition: The date and time when this observation was correlated.	4. Data Type: varchar(14), NULL	
-HEADER- JCDB	ELEMENT NAME: Condition Type	ATTRIBUTE NAME: cndtn_typ	DEFINITION: Describes the Condition Type as a Time, Geographical, or general SQL.	DATA TYPE: varchar(15)	
-HEADER- MIDB	1. Element Name: CORR_STEP	2. Attribute Name: CORR STEP	3. Definition: Signifies at what step in the correlation process the observation was correlated.	4. Data Type: int, NULL	
-HEADER- JCDB	ELEMENT NAME: ENG_TGT_NUM	ATTRIBUTE NAME: MSN_TGT_ID	DEFINITION: This attribute defines the number that will identify, correlate, and associate data concerning a specific target across units and roles. The number consists of an alphanumeric string of six characters. The first two positions are letters while the last four are digits. Target numbers are sequenced.	DATA TYPE: varchar(6)	
-HEADER- JCDB	ELEMENT NAME: EVENT_ASSC_CD	ATTRIBUTE NAME: EVENT_ASSC_CD	DEFINITION: The code that denotes the manner in which EVENTs are related to one another.	DATA TYPE: varchar(4)	
-HEADER- JCDB	ELEMENT NAME: NETWORK-LINK installation priority code	ATTRIBUTE NAME: PRIORITY_CD	DEFINITION: The code that denotes the classification of the relative importance of establishing a NETWORK-LINK.	DATA TYPE: smallint	
-HEADER- JCDB	ELEMENT NAME: ACTASSC_TYP_CD	ATTRIBUTE NAME: ACTASSC_TYP_CD	DEFINITION: The code that denotes the way one ACTION is related to another.	DATA TYPE: varchar(2)	
-HEADER- MIDB	1. Element Name: COVERED_PERCENT	2. Attribute Name: COVERED PERCENT	3. Definition: The fraction of ground area represented on imagery, photomaps, mosaic maps or other geographic presentation systems for a specified area of interest expressed in percent; or percentage of the target struck by ordnance.	4. Data Type: tinyint, NULL	
-HEADER- JCDB	ELEMENT NAME: LAND-GEO-FEATURE summer tree cover density quantity	ATTRIBUTE NAME: LNDFEAT_SUMER_COV	DEFINITION: The quantity as a percent of the summer canopy closure within a delineated area of a FEATURE. (0-100%)	DATA TYPE: smallint NOPTIONS:NULL	
-HEADER- JCDB	ELEMENT NAME: LAND-GEO-FEATURE winter tree cover density quantity	ATTRIBUTE NAME: LNDFEAT_WINTREE_CV	DEFINITION: The code that describes the percent of winter canopy closure within the delineated area of a FEATURE. (0-100%)	DATA TYPE: smallint NOPTIONS:NULL	
-HEADER- JCDB	ELEMENT NAME: MISSION-AREA identifier	ATTRIBUTE NAME: MISSION_AREA_INDX	DEFINITION: The identifier that represents a MISSION-AREA.	DATA TYPE: serial integer NOPTIONS:NOT NULL NOT NULL	

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-HEADER- JCDB	ELEMENT NAME: MISSION-AREA type code	ATTRIBUTE NAME: MSN_AREA_TYP_CD	DEFINITION: The code that denotes a class of MISSION-AREA.	DATA TYPE: smallint NOPTIONS:NOT NULL
-HEADER- MIDB	1. Element Name: DATETIME_LAST_OBS	2. Attribute Name: DATETIME LAST OBS	3. Definition: Date or datetime of the last observation (OBS).	4. Data Type: varchar(14), NULL
-HEADER- JCDB	ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: MESSAGE receipt date	ATTRIBUTE NAME: MSG_RCEIPT_DTTM	DEFINITION: The date and time that the MESSAGE document was received.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: PERCEPTION reporting calendar datetime	ATTRIBUTE NAME: PERCEP_REPRT_DTTM	DEFINITION: The datetime of the report of a PERCEPTION.	DATA TYPE: datetime year to second NOPTIONS:NOT NULL
-HEADER- MIDB	1. Element Name: DEGREE_INTEREST	2. Attribute Name: DEGREE INTEREST	3. Definition: U&S command interest held on an site and/or equipment and is a decision factor in determining the frequency of recurring observations. Required whenever a record is established for an electronic site.	4. Data Type: char(1), NULL
-HEADER- JCDB ATTRIBUTE NAME: TRGT_NUM	PHYSICAL NAME: TRGT_NUM	DEFINITION: The number which represents the U.S. Army Fire Support System Target Numbering System this entry allows for a method of recording U.S. Target numbers for tactical units.	DATA TYPE: varchar(6)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: CANDIDATE-TARGET fire support target number	PHYSICAL NAME: COMMON_TRGT_NUM	DEFINITION: The number which represents the AFATDS - U.S. Target Numbering System this entry allows for a method of recording U.S. Target numbers for tactical units.	DATA TYPE: varchar(6)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: PLAN_COMPONENT index	ATTRIBUTE NAME: PLAN_COMP_INDX	DEFINITION: The unique identifier that represents a specific PLAN_COMPONENT	DATA TYPE: integer integer integer integer integer serial integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL
-HEADER- JCDB	ELEMENT NAME: MATERIEL-ITEM-ORGANIZATION-HOLDING amplification text	ATTRIBUTE NAME: HLDNGS_AMP_TXT	DEFINITION: A text field that adds detail or command requirements to a specific MATERIEL-ITEM-ORGANIZATION-HOLDING.	DATA TYPE: varchar(254) varchar(254) NOPTIONS:NULL NULL

	HEADER- JCDB	ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET fire support BE number	PHYSICAL NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13)	NULL OPTION
-HEADER-MIDB	1. Element Name: DELETE_POINTER	2. Attribute Name: DELETE POINTER	3. Definition: This indicates observations that should be ignored during correlation. (Y)es, ignore this observation during correlation. (N)o, use this observation during correlation.	4. Data Type: char(1), NULL
-HEADER- JCDB ATTRIBUTE NAME: OBSERVATION code	PHYSICAL NAME: OBSERV_CD	DEFINITION: The code that denotes whether or not a object_FEATURE was visually observed (TRUE) or not (FALSE).	DATA TYPE: smallint smallint	NULL OPTION
-HEADER-MIDB	1. Element Name: DESTINATION_COORD	2. Attribute Name: DESTINATION COORD	3. Definition: An estimated coordinate of the destination of the observation or track.	4. Data Type: varchar(21), NULL
-HEADER- JCDB	ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT accuracy quantity	PHYSICAL NAME: ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION. The code representing the uncertainty in the estimate of a specific FRIENDLY-ORGANIZATION-POINT.	DATA TYPE: integer integer
-HEADER- JCDB	ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT enclosure radius number	PHYSICAL NAME: FPT_COORD_ROA	DEFINITION: The quantity of the radius of the circle that the FRIENDLY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
-HEADER- JCDB	ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	DATA TYPE: integer

-HEADER- JCDB	ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT accuracy quantity	PHYSICAL NAME: ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION.	DATA TYPE: integer
HEADER- JCDB	ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION accuracy quantity	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific UNPLANNED-TARGET-LOCATION. Unit of Measure = Meters	DATA TYPE: integer
-HEADER- JCDB	ATTRIBUTE NAME	ENEMY-PERSON-POINT accuracy quantity	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ENEMY PERSON POINT
-HEADER- JCDB	ATTRIBUTE NAME: EVENT-LOCATION accuracy code	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ACTION-LOCATION. Unit of Measure = Meters	DATA TYPE: integer
-HEADER- JCDB	ATTRIBUTE NAME: FACILITY-POINT accuracy quantity code	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object-POINT. Unit of Measure = Meters	DATA TYPE: integer
-HEADER- MIDB	1. Element Name: DESTINATION_DATETIME	2. Attribute Name: DESTINATION DATETIME	3. Definition: The date or datetime when an observation or track will reach the estimated destination coordinate (DESTINATION_COORD).	4. Data Type: varchar(14), NULL
-HEADER- JCDB	ATTRIBUTE NAME: MATERIEL-ITEM-FACILITY-HOLDING actual reporting datetime	ATTRIBUTE NAME: REPORT_ACTUAL_DTTM	DEFINITION: The datetime a specific MATERIEL-ITEM-FACILITY-HOLDING is reported.	DATA TYPE: datetime year to second datetime year to second
-HEADER- JCDB	ATTRIBUTE NAME: PERCEPTION end datetime	ATTRIBUTE NAME: PERCEP_END_DTTM	DEFINITION: The determined or observed end time for an event which has a PERCEPTION.	DATA TYPE: datetime year to second
-HEADER- JCDB	ATTRIBUTE NAME: ENEMY-ORG-POINT-OVERLAY application datetime	ATTRIBUTE NAME: EORG_PT_APPL_DT	DEFINITION: The datetime that a specific ENEMY-ORG-POINT location has been applied to a specific OVERLAY.	DATA TYPE: datetime year to second
-HEADER- MIDB	1. Element Name: DESTINATION_SYMBOL_CODE	2. Attribute Name: DESTINATION SYMBOL CODE	3. Definition: A symbol code for the estimated destination of the observation or track. A standard scheme for symbol coding enabling the transfer, display and use of symbols and graphics among information systems, as per MIL-STD 2525A, and supported by the element AFFILIATION.	4. Data Type: varchar(15), NULL
-HEADER- JCDB ATTRIBUTE NAME: gsd_id	PHYSICAL NAME: gsd_id	DEFINITION: GSD code from Mil Std 2525B.	DATA TYPE: varchar(15)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-SYMBOL code	PHYSICAL NAME: SYMBOL_CD	DEFINITION: The code that denotes the class of a FEATURE-SYMBOL.	DATA TYPE: varchar(15)	NULL OPTION

-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL symbol code	ATTRIBUTE NAME: EQUIP_SYMBOL_CD	DEFINITION: The code that denotes the symbol that represents an ENEMY-MATERIEL	DATA TYPE: varchar(15) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-SYMBOL code	ATTRIBUTE NAME: SYMBOL_CD	DEFINITION: The code that denotes the class of a FEATURE-SYMBOL.	DATA TYPE: varchar(15) NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: DURATION	2. Attribute Name: DURATION	3. Definition: Duration of intercept or event. This value is generally reported in minutes.	4. Data Type: int, NULL
HEADER- JCDB ATTRIBUTE NAME: BIOLOGICAL-CHEMICAL-FEATURE means of delivery code	PHYSICAL NAME: BIOFEAT_EXPTD_DUR	DEFINITION: The duration that an observed, or reported, BIOLOGICAL-CHEMICAL-FEATURE hazard is expected to remain in effect. Unit of Measure = Seconds	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: NUCLEAR-FEATURE flash to bang time	ATTRIBUTE NAME: NFEAT_FLASH_BANG	DEFINITION: The duration from the time that a flash was observed to when the noise of detonation reached the observer.	DATA TYPE: integer NOPTIONS:NULL
MIDB	ELEVATION	Ground elevation of the geographic coordinates (above or below) a referenced ellipsoid vertical datum, usually WGS_84. This field is supported by: ELEVATION_ACC + ELEVATION_CONF_LVL + ELEVATION_DATUM + ELEVATION_DERIV + ELEVATION_DERIV_ACC + ELEVATION_DERIV_ACC_UM + ELEVATION_UM	FLOAT	
JCDB	ALTITUDE_ft	The altitude of an airborne object above ground level which has a specific corresponding POINT location. Unit of Measure = Feet. Altitude applies to objects capable of airborne flight. Elevation applies to fixed objects.	INTEGER	MATERIEL-POINT
JCDB	ELEVATION_m	The elevation from mean sea level, of a specified MATERIEL-POINT. Unit of Measure = Meters	2 INTEGER	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY
-HEADER- MIDB	1. Element Name: ELEVATION	2. Attribute Name: ELEVATION	3. Definition: Ground elevation of the geographic coordinates (above or below) a referenced ellipsoid vertical datum, usually WGS_84. This field is supported by: ELEVATION_ACC + ELEVATION_CONF_LVL + ELEVATION_DATUM + ELEVATION_DERIV + ELEVATION_DERIV_ACC + ELEVATION_DERIV_ACC_UM + ELEVATION_UM.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION minimum elevation dimension	PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION maximum elevation dimension	PHYSICAL NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: WEAPON-TYPE elevation minimum angle	PHYSICAL NAME: WPN_MIN_ELVAT_ANG	DEFINITION: The angle from the horizontal centerline of a vertically steerable WEAPON-TYPE to the most extreme downward position it can be physically rotated without moving its base of support.	DATA TYPE: decimal(6,5)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FRIENDLY-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from the level specified by the FRIENDLY-ORG-POINT elevation category code for a specific FRIENDLY-ORG- POINT.	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_ACC	2. Attribute Name: ELEVATION ACC	3. Definition: Linear Error (at ELEVATION_CONF_LVL assurance) of the value in the ELEVATION field.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: FACILITY grade dimension	PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)	NULL OPTION

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-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_CONF_LVL	2. Attribute Name: ELEVATION CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, ELEVATION linear accuracy, has been vertically positioned to within a specified vertical accuracy.	4. Data Type: tinyint, NULL
-HEADER- JCDB ATTRIBUTE NAME: FACILITY-POINT vertical precision code	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the precision for specifying the elevation of an object along a normal to horizontal plane. This code measures the accuracy of its FACILITY-POINT location in the "2" dimension.	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FACILITY grade dimension	PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)	NULL OPTION

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-HEADER- MIDB	1. Element Name: ELEVATION_DATUM	2. Attribute Name: ELEVATION DATUM	3. Definition: The vertical datum of the ellipsoid to which the ELEVATION value is referenced.	4. Data Type: char(3), NULL
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION minimum elevation dimension	PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION maximum elevation dimension	PHYSICAL NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_DERIV_ACC	2. Attribute Name: ELEVATION DERIV ACC	3. Definition: Indicates the plus or minus error assessed against the method used to derive the elevation, ELEVATION_DERIV. This derivation error is used along with the source error in order to correctly assess a precision targeting elevation.	4. Data Type: float, NULL

-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity denoting the precision for specifying the elevation of an item POINT along a normal to horizontal plane.	DATA TYPE: integer integer	NULL OPTION
HEADER- MIDB	1. Element Name: ELEVATION_MSL_ACC	2. Attribute Name: ELEVATION MSL ACC	3. Definition: Linear Error (at ELEVATION_MSL_CONF_LVL assurance) of the value in the ELEVATION_MSL field.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION
-HEADER-MIDB	1. Element Name: ELEVATION_MSL_CONF_LVL	2. Attribute Name: ELEVATION MSL CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, ELEVATION_MSL linear accuracy, has been vertically positioned to within a specified vertical accuracy.	4. Data Type: tinyint, NULL
	-HEADER- JCDB ATTRIBUTE NAME: FACILITY grade dimension	PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)
-HEADER-MIDB	1. Element Name: ELEVATION_MSL_DERIV_ACC	2. Attribute Name: ELEVATION MSL DERIV ACC	3. Definition: Indicates the plus or minus error assessed against the method used to derive the elevation, ELEVATION_MSL_DERIV. This derivation error is used along with the source error in order to correctly assess a precision targeting elevation.	4. Data Type: float, NULL

-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_MSL_UM	2. Attribute Name: ELEVATION MSL UM	3. Definition: Unit of measure for ELEVATION_MSL field value.	4. Data Type: char(9), NULL
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from MSL (Mean Sea Level) specified by the FEATURE-LOCATION-POINT elevation category code for a specific FEATURE-LOCATION-POINT. Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: LAND-GEO-FEATURE tree canopy height dimension	PHYSICAL NAME: LNDFEAT_CANOPY_HT	DEFINITION: The tree canopy height dimension of a specific LAND-GEO-FEATURE. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

-HEADER- MIDB	1. Element Name: ELEVATION_UM	2. Attribute Name: ELEVATION UM	3. Definition: Unit of measure for ELEVATION field value.	4. Data Type: char(9), NULL
-HEADER- JCDB ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from the level specified by the FRIENDLY-ORG-POINT elevation category code for a specific FRIENDLY-ORG- POINT. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_MSL_DERIV_ACC	2. Attribute Name: ELEVATION MSL DERIV ACC	3. Definition: Indicates the plus or minus error assessed against the method used to derive the elevation, ELEVATION_MSL_DERIV. This derivation error is used along with the source error in order to correctly assess a precision targeting elevation.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	DATA TYPE: integer	NULL OPTION
HEADER- MIDB	1. Element Name: ELNOT_ORIGINAL	2. Attribute Name: ELNOT ORIGINAL	3. Definition: The primary five character Electronic Intelligence ELINT notation established by NSA for non-communications electronic emissions. Used to preserve original signal identification in case of modification by subsequent processing.	4. Data Type: char(5), NULL

HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET fire support BE number	PHYSICAL NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13)	NULL OPTION
-HEADER- MIDB	1. Element Name: ELNOT_RE_IDENT	2. Attribute Name: ELNOT RE IDENT	3. Definition: The primary five character Electronic Intelligence ELINT notation established by NSA for non-communications electronic emissions. Used to preserve original signal identification in case of modification by subsequent processing.	4. Data Type: char(5), NULL
	-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET fire support BE number	PHYSICAL NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13)
-HEADER- MIDB	1. Element Name: GRAPHIC_AGENCY	2. Attribute Name: GRAPHIC AGENCY	3. Definition: Indicates the Agency which produced the graphic.	4. Data Type: varchar(15)
-HEADER- JCDB ATTRIBUTE NAME: AIR-ROUTE-SEGMENT bidirectional indicator code	PHYSICAL NAME: AIR_TRFC_CNTRL_CD	DEFINITION: The code that denotes the agency providing air traffic services for an AIR-ROUTE-SEGMENT.	DATA TYPE: smallint	NULL OPTION

-HEADER- JCDB ATTRIBUTE NAME: PLAN-OVERLAY identifier	PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial	NULL OPTION
-HEADER- MIDB	1. Element Name: GRAPHIC_CC	2. Attribute Name: GRAPHIC CC	3. Definition: Indicates the code of country which produced the graphic.	4. Data Type: char(2)
	-HEADER- JCDB ATTRIBUTE NAME: COUNTRY code	PHYSICAL NAME: CODE COUNTRY_CD	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2)
-HEADER- JCDB	ELEMENT NAME: subject OVERLAY	ATTRIBUTE NAME: OVERLAY_INDX	DEFINITION: The unique identifier for an overlay	DATA TYPE: integer NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: OVERLAY-ASSOCIATION relationship type code	ATTRIBUTE NAME: OLAY_ASSC_REL	DEFINITION: The code which denotes the way in which a subject OVERLAY is associated with a object OVERLAY.	DATA TYPE: smallint NOPTIONS:NOT NULL
-HEADER- MIDB	1. Element Name: GRAPHIC_ED_DATE	2. Attribute Name: GRAPHIC ED DATE	3. Definition: The edition date of the map graphic.	4. Data Type: varchar(8)
-HEADER- JCDB ATTRIBUTE NAME: MAP edition identifier	PHYSICAL NAME: MAP_EDITION_ID	DEFINITION: The unique identifier which indicates the edition of a particular MAP document.	DATA TYPE: varchar(15)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: PLAN-OVERLAY identifier	PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial	NULL OPTION

-HEADER- JCDB ATTRIBUTE NAME: Effective Datetime	PHYSICAL NAME: effct_dttm	DEFINITION: Date and time of last update. Datetime that a specific definition was last modified.	DATA TYPE: datetime year to second datetime year to second	NULL OPTION
-HEADER- MIDB	1. Element Name: GRAPHIC_SHEET	2. Attribute Name: GRAPHIC SHEET	3. Definition: The sheet number of the graphic for which this designation is appropriate, or the organization producing the chart may be entered in these positions. Sheet numbers for the JOG series are entered as follows: NI 15-04.	4. Data Type: varchar(15)
-HEADER- JCDB ATTRIBUTE NAME: PERCEPTION identifier	PHYSICAL NAME: PERCEP_REF_INDX	DEFINITION: The number which denotes a specific PERCEPTION. A serial index.	DATA TYPE: integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer integer	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: PLAN-OVERLAY identifier	ATTRIBUTE NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: DOCUMENT identifier	ATTRIBUTE NAME: DOC_INDX	DEFINITION: The unique identifier for a specific DOCUMENT	DATA TYPE: serial integer integer integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL
-HEADER- JCDB	ELEMENT NAME: MAP series identifier	ATTRIBUTE NAME: MAP_SERIES_ID	DEFINITION: The sequential identifier that represents a collection of plane surface representations of the earth's surface.	DATA TYPE: varchar(15) NOPTIONS:NOT NULL
-HEADER- MIDB	1. Element Name: MSG_DTG	2. Attribute Name: MSG DTG	3. Definition: The date time group of the message containing this observation.	4. Data Type: char(12), NULL
HEADER- JCDB	ELEMENT NAME: PERCEPTION reporting calendar datetime	ATTRIBUTE NAME: PERCEP_REPRT_DTTM	DEFINITION: The datetime of the report of a PERCEPTION.	DATA TYPE: datetime year to second NOPTIONS:NOT NULL
HEADER- JCDB	ELEMENT NAME: PERCEPTION end datetime	ATTRIBUTE NAME: PERCEP_END_DTTM	DEFINITION: The determined or observed end time for an event which has a PERCEPTION.	DATA TYPE: datetime year to second NOPTIONS:NULL
HEADER- JCDB	ELEMENT NAME: NUCLEAR-FEATURE event time	ATTRIBUTE NAME: NFEAT_EVNT_DTTM	DEFINITION: The effective time of a reported NUCLEAR-FEATURE.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: MESSAGE receipt date	ATTRIBUTE NAME: MSG_RCEIPT_DTTM	DEFINITION: The date and time that the MESSAGE document was received.	DATA TYPE: datetime year to second NOPTIONS:NULL

-HEADER- JCDB	ELEMENT NAME: MATERIEL-ITEM-ORGANIZATION-HOLDING actual reporting datetime	ATTRIBUTE NAME: REPORT_ACTUAL_DTTM	DEFINITION: The datetime a specific MATERIEL-ITEM-ORGANIZATION-HOLDING is reported.	DATA TYPE: datetime year to second datetime year to second NOPTIONS:NULL NULL
HEADER- JCDB	ELEMENT NAME: MATERIEL-ITEM-FACILITY-HOLDING actual reporting datetime	ATTRIBUTE NAME: REPORT_ACTUAL_DTTM	DEFINITION: The datetime a specific MATERIEL-ITEM-FACILITY-HOLDING is reported.	DATA TYPE: datetime year to second datetime year to second NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: MSG_PRECEDENCE	2. Attribute Name: MSG PRECEDENCE	3. Definition: Indicates the comunication's handling precedence assigned to the message.	4. Data Type: char(2), NULL
-HEADER- JCDB	ELEMENT NAME: SUP_REPRT_CAT_CD	ATTRIBUTE NAME: SUP_REPRT_CAT_CD	DEFINITION: The code that denotes the report class of a specific SUPPLY status.	DATA TYPE: smallint smallint NOPTIONS:NULL NULL
-HEADER- MIDB	1. Element Name: MSG_UPDATE_NUM	2. Attribute Name: MSG UPDATE NUM	3. Definition: The update number of the message containing this observation.	4. Data Type: int, NULL
-HEADER- JCDB	ELEMENT NAME: SUP_REPRT_CAT_CD	ATTRIBUTE NAME: SUP_REPRT_CAT_CD	DEFINITION: The code that denotes the report class of a specific SUPPLY status.	DATA TYPE: smallint smallint NOPTIONS:NULL NULL
-HEADER- MIDB	1. Element Name: OBS_COMM_SITE_SK	2. Attribute Name: Not displayed.	3. Definition: The surrogate key, established at row creation time, uniquely identifies each row of OBSERVATION COMMUNICATION SITE data.	4. Data Type: numeric(14,0), NOT NULL
-HEADER- JCDB	ELEMENT NAME: FACILITY intelligence key code	ATTRIBUTE NAME: FAC_SK	DEFINITION: The unique surrogate key which identifies a specific FACILITY as ENEMY. The surrogate key, established at row creation time, uniquely identifies each row of TARGET SYSTEM FACILITY data. Permissible Values: SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	DATA TYPE: varchar(14) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FACILITY-ASSOCIATION subject master key	ATTRIBUTE NAME: A_FAC_MASTER_KEY	DEFINITION: The primary master key assigned to a specific FACILITY. (Used by intelligence systems)	DATA TYPE: varchar(14) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FACILITY MASTER KEY	ATTRIBUTE NAME: FAC_MASTER_KEY	DEFINITION: The ASAS assigned unique identifier for a specific FACILITY	DATA TYPE: varchar(14) varchar(14) varchar(14) NOPTIONS:NULL NULL NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL MASTER KEY	ATTRIBUTE NAME: EQUIP_MASTER_KEY	DEFINITION: The ASAS provided master intelligence key for an ENEMY-MATERIEL	DATA TYPE: varchar(14) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL ewquipment surrogate key	ATTRIBUTE NAME: EQP_SK	DEFINITION: A unique ASAS-assigned surrogate key which uniquely identifies ENEMY-MATERIEL equipment	DATA TYPE: varchar(14) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SUBJECT_ENEMY-MATERIEL master key	ATTRIBUTE NAME: SBEQUIP_MASTER_KEY	DEFINITION: The ASAS assigned unique identifier for a specific ENEMY MATERIEL	DATA TYPE: varchar(14) NOPTIONS:NULL

-HEADER- MIDB	1. Element Name: OBS_DATETIME	2. Attribute Name: OBS DATETIME	3. Definition: The date and time when the activity was observed.	4. Data Type: varchar(14), NULL
-HEADER- JCDB	ELEMENT NAME: PERCEPTION start datetime	ATTRIBUTE NAME: PERCEP_STRT_DTTM	DEFINITION: The determined or observed start time for an event which has a PERCEPTION.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: PERCEPTION reporting calendar datetime	ATTRIBUTE NAME: PERCEP_REPRT_DTTM	DEFINITION: The datetime of the report of a PERCEPTION.	DATA TYPE: datetime year to second NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: NUCLEAR-FEATURE event time	ATTRIBUTE NAME: NFEAT_EVNT_DTTM	DEFINITION: The effective time of a reported NUCLEAR-FEATURE.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: MESSAGE receipt date	ATTRIBUTE NAME: MSG_RCEIPT_DTTM	DEFINITION: The date and time that the MESSAGE document was received.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: MATERIEL-ITEM-ORGANIZATION-HOLDING actual reporting datetime	ATTRIBUTE NAME: REPORT_ACTUAL_DTTM	DEFINITION: The datetime a specific MATERIEL-ITEM-ORGANIZATION-HOLDING is reported.	DATA TYPE: datetime year to second datetime year to second NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: OBS_ELNOT_SK	2. Attribute Name: Not displayed.	3. Definition: The surrogate key, established at row creation time, uniquely identifies each row of OBSERVATION ELINT NOTATION data.	4. Data Type: numeric(14,0), NOT NULL
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET fire support BE number	ATTRIBUTE NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13) NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: OBS_LENGTH	2. Attribute Name: OBS LENGTH	3. Definition: The length of the observed item.	4. Data Type: float, NULL
HEADER- JCDB	ELEMENT NAME: NUCLEAR-FEATURE flash to bang time	ATTRIBUTE NAME: NFEAT_FLASH_BANG	DEFINITION: The duration from the time that a flash was observed to when the noise of detonation reached the observer.	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: CANDIDATE-TARGET vicinity duration quantity	ATTRIBUTE NAME: CTRGT_VCNTY_DUR	DEFINITION: The quantity that a specific CANDIDATE-TARGET is expected to remain in the region of its observed or detected location. Unit of Measure = Seconds	DATA TYPE: integer NOPTIONS:NULL
HEADER- JCDB	ELEMENT NAME: BIOLOGICAL-CHEMICAL-FEATURE means of delivery code	ATTRIBUTE NAME: BIOFEAT_EXPTD_DUR	DEFINITION: The duration that an observed, or reported, BIOLOGICAL-CHEMICAL-FEATURE hazard is expected to remain in effect. Unit of Measure = Seconds	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: BIOLOGICAL-CHEMICAL-FEATURE expected duration quantity	ATTRIBUTE NAME: BIOFEAT_BURSTT_QTY	DEFINITION: The numeric count of the number of bursts for the specific burst type class being reported for a BIOLOGICAL-CHEMICAL-FEATURE.	DATA TYPE: smallint NOPTIONS:NULL

-HEADER- MIDB	1. Element Name: OBS_NAME	2. Attribute Name: OBS NAME	3. Definition: The name of the entity or activity being observed.	4. Data Type: varchar(54), NOT NULL
-HEADER- JCDB	ELEMENT NAME: Number	ATTRIBUTE NAME: F_ORG_PT_ORG_INPUT	DEFINITION: This is a role name for the ORG_ID of the Organization that is reporting the location of a subordinate unit.	DATA TYPE: integer NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT organization input identifier	ATTRIBUTE NAME: F_ORG_PT_ORG_INPUT	DEFINITION: This is the role name for the ORG_ID of the organization that is reporting the location of a subordinate unit.	DATA TYPE: integer integer NOPTIONS:NOT NULL NOT NULL
-HEADER- MIDB	1. Element Name: OBS_REPORT_SK	2. Attribute Name: Not displayed.	3. Definition: The surrogate key, established at row creation time, uniquely identifies each row of OBSERVATION REPORT data.	4. Data Type: numeric(14,0), NOT NULL
-HEADER- JCDB	ELEMENT NAME: MESSAGE format type code	ATTRIBUTE NAME: MSG_FORMAT_TYP_CD	DEFINITION: The code that denotes the formatting structure used for a specific MESSAGE.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: OBS_WIDTH	2. Attribute Name: OBS WIDTH	3. Definition: The width of the observed item. Width is the measurement of the extent of an object along its least dimension, or from side to side.	4. Data Type: float, NULL
-HEADER- JCDB	ELEMENT NAME: BRIDGE remarks text	ATTRIBUTE NAME: BRIJ_MAX_OTR_WDT_m	DEFINITION: The maximum width dimension of the outer most portion of the BRIDGE measured perpendicular to the center line. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: PERIODICITY	2. Attribute Name: PERIODICITY	3. Definition: Frequency for observation and reporting on a site or equipment in terms of the total number of days (interval) lapsed between observations. This interval between observations is related to the DEGREE_INTEREST data element for each site or equipment.	4. Data Type: smallint, NULL
-HEADER- JCDB ATTRIBUTE NAME: BIOLOGICAL-CHEMICAL-FEATURE means of delivery code	PHYSICAL NAME: BIOFEAT_EXPTD_DUR	DEFINITION: The duration that an observed, or reported, BIOLOGICAL-CHEMICAL-FEATURE hazard is expected to remain in effect. Unit of Measure = Seconds	DATA TYPE: integer	NULL OPTION

-HEADER- MIDB	1. Element Name: PGRI	2. Attribute Name: PGRI	3. Definition: Pulse group repetition interval. The time from the leading edge of one group of radar pulses to the next group of pulses.	4. Data Type: float, NULL
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE range minimum dimension	ATTRIBUTE NAME: RNG_MIN_DIM_m	DEFINITION: The dimension of the smallest distance at which a SENSOR-TYPE can perform its function. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE range maximum dimension	ATTRIBUTE NAME: RNG_MAX_DIM_m	DEFINITION: The dimension of the largest distance at which a SENSOR-type can perform its function. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE accuracy dimension	ATTRIBUTE NAME: ACCRCY_DIM_ft	DEFINITION: The dimension of the error of distance of the position of an object detected by a SENSOR-TYPE. (0-100%)	DATA TYPE: integer NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: POLARIZATION	2. Attribute Name: POLARIZATION	3. Definition: The polarization of an electromagnetic wave is described by the geometric figure traced by the electric field vector as the wave travels through space. The polarization of the radio wave will be referenced to the direction of propagation.	4. Data Type: char(5), NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-LINK polarization code	ATTRIBUTE NAME: NETLNK_POLARIZ_CD	DEFINITION: The code that denotes the polarization of a specific NETWORK-LINK.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: PRI_ACTIVITY_CODE	2. Attribute Name: PRI ACTIVITY CODE	3. Definition: The modulation characteristic of the intercepted signal.	4. Data Type: char(1), NULL
-HEADER- JCDB ATTRIBUTE NAME: NETWORK-LINK modulation type code	PHYSICAL NAME: MODULATN_TYP_CD	DEFINITION: The code that denotes the scheme used to encode information on a NETWORK-LINK.	DATA TYPE: smallint	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: NETWORK-CHANNEL modulation type code	PHYSICAL NAME: MODULATN_TYP_CD	DEFINITION: The code that denotes the scheme used to encode information on a NETWORK-LINK.	DATA TYPE: smallint	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: COMMAND-SIGNAL-COMPONENT text	PHYSICAL NAME: COMMAND_SIGNAL_TXT	DEFINITION: The text that provides Command and Signal information about a specific plan. [This text field is designed to contain unstructured information related to Paragraph 5 of a standard Army Operations Plan or Order.]	DATA TYPE: varchar(254)	NULL OPTION
-HEADER- MIDB	1. Element Name: PRI_TYPE	2. Attribute Name: PRI TYPE	3. Definition: A description of the format used for the Pulse Repetition Interval modulation type.	4. Data Type: char(2), NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-RADIO planning range dimension	ATTRIBUTE NAME: NETRAD_PLAN_RNG_km	DEFINITION: The design specified transmission distance which is associated with a specific NETWORK-RADIO.	DATA TYPE: integer NOPTIONS:NULL

-HEADER- MIDB	1. Element Name: RF_AGILITY_FLAG	2. Attribute Name: RF AGILITY FLAG	3. Definition: Indicates whether the emitter is exibiting radio frequency agility. Examples are spread spectrum, direct sequence or frequency hopping. (Y)es, the radar capable of changing frequencies during transmission. (N)o, the radar is not capable of changing frequencies during transmission.	4. Data Type: char(1), NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-RADIO modulation type code	ATTRIBUTE NAME: MODULATN_TYP_CD	DEFINITION: The name of the method that a NETWORK-RADIO alters the characteristics of a signal.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-CHANNEL directional code	ATTRIBUTE NAME: NTWK_DIRCTN_CD	DEFINITION: The code that denotes the information exchange method of a specific NETWORK-CHANNEL.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: RF_CODE_LIMIT	2. Attribute Name: RF CODE LIMIT	3. Definition: Indicates the lower limit frequency code, followed by a hyphen, followed by the upper limit frequency code, e.g., A421B-C198T.	4. Data Type: varchar(15), NULL
HEADER- JCDB	ELEMENT NAME: NETWORK-RADIO frequency band code	ATTRIBUTE NAME: NETRAD_FREQ_BAND	DEFINITION: The single or the lower-range frequency band for which a NETWORK-RADIO is designed for use.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE frequency upper limit rate	ATTRIBUTE NAME: FQY_UPP_LIM_RT	DEFINITION: The rate of the largest number of complete oscillations of an electromagnetic wave per unit time that a SENSOR-TYPE can receive for processing.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE frequency lower limit rate	ATTRIBUTE NAME: FQY_LOW_LIM_RT	DEFINITION: The rate of the smallest number of complete oscillations of an electromagnetic wave per unit time that a SENSOR-TYPE can receive for processing.	DATA TYPE: smallint NOPTIONS:NULL
HEADER- MIDB	1. Element Name: RF_OPER_MODE	2. Attribute Name: RF OPER MODE	3. Definition: The identification assigned to distinguish between those emitters which are operating on a fixed frequency and those which exhibit changing frequency operation.	4. Data Type: char(1), NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-RADIO modulation type code	ATTRIBUTE NAME: MODULATN_TYP_CD	DEFINITION: The name of the method that a NETWORK-RADIO alters the characteristics of a signal.	DATA TYPE: smallint NOPTIONS:NULL
HEADER- JCDB	ELEMENT NAME: NETWORK-RADIO channel quantity	ATTRIBUTE NAME: NETRAD_CHAN_QTY_ea	DEFINITION: The number of transmission facilities with a defined bandwidth associated with a NETWORK-RADIO.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-CHANNEL serial count quantity	ATTRIBUTE NAME: NTWK_CHN_COUNT	DEFINITION: The identifier that represents the sequential number of a specific equivalent NETWORK-CHANNEL(s).	DATA TYPE: numeric NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK transport media type code	ATTRIBUTE NAME: NTWRK_TRNSPRT_CD	DEFINITION: The code that denotes the class of communications media for a specific NETWORK.	DATA TYPE: smallint NOPTIONS:NULL
HEADER- JCDB	ELEMENT NAME: NETWORK identifier	ATTRIBUTE NAME: NETWORK_INDX	DEFINITION: The unique identifier for a specific NETWORK	DATA TYPE: integer serial integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK communication medium category code	ATTRIBUTE NAME: NETCOM_MEDIUM_CD	DEFINITION: The code that represents a class of communication medium used to implement a specific NETWORK.	DATA TYPE: smallint NOPTIONS:NULL

-HEADER- MIDB	1. Element Name: RF_TYPE	2. Attribute Name: RF TYPE	3. Definition: Describes the characteristics of the frequency.	4. Data Type: char(1), NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-RADIO modulation type code	ATTRIBUTE NAME: MODULATN_TYP_CD	DEFINITION: The name of the method that a NETWORK-RADIO alters the characteristics of a signal.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: AIR CONTROL FEATURE transition altitude	ATTRIBUTE NAME: SCND_COMM_FREQ	DEFINITION	The alternate frequency allowing communications with an air traffic service within an AIR_CONTROL_FEAT
-HEADER- JCDB	ELEMENT NAME: AIR CONTROL FEATURE deconfliction code	ATTRIBUTE NAME: A_CFEAT_COMM_FREQ	DEFINITION: The primary frequency allowing communications with an air traffic service within an AIR_CONTROL_FEAT	DATA TYPE: varchar(8) NOPTIONS:NULL
HEADER- MIDB	1. Element Name: SCAN	2. Attribute Name: SCAN	3. Definition: For a scanning radar, the amount of time it takes the radar to complete one scanning pattern. Normally measured in seconds for a mechanical scanning radar and in microseconds for an electronically scanned radar.	4. Data Type: float, NULL
HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE range minimum dimension	ATTRIBUTE NAME: RNG_MIN_DIM_m	DEFINITION: The dimension of the smallest distance at which a SENSOR-TYPE can perform its function. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE range maximum dimension	ATTRIBUTE NAME: RNG_MAX_DIM_m	DEFINITION: The dimension of the largest distance at which a SENSOR-type can perform its function. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE frequency upper limit rate	ATTRIBUTE NAME: FQY_UPP_LIM_RT	DEFINITION: The rate of the largest number of complete oscillations of an electromagnetic wave per unit time that a SENSOR-TYPE can receive for processing.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE frequency lower limit rate	ATTRIBUTE NAME: FQY_LOW_LIM_RT	DEFINITION: The rate of the smallest number of complete oscillations of an electromagnetic wave per unit time that a SENSOR-TYPE can receive for processing.	DATA TYPE: smallint NOPTIONS:NULL
HEADER- MIDB	1. Element Name: SIG	2. Attribute Name: SIG	3. Definition: The origin of an acoustic signal. This is plain language designators for source codes.	4. Data Type: varchar(15), NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK identifier	ATTRIBUTE NAME: NETWORK_INDX	DEFINITION: The unique identifier for a specific NETWORK	DATA TYPE: integer serial integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL
-HEADER- MIDB	1. Element Name: SIG_MODE	2. Attribute Name: SIG MODE	3. Definition: Type of modulation required for transmitting a specific / particular signal.	4. Data Type: char(2)
-HEADER- JCDB	ELEMENT NAME: NETWORK modulation type code	ATTRIBUTE NAME: MODULATN_TYP_CD	DEFINITION: The code the denotes the modulation type for a NETWORK.	DATA TYPE: smallint NOPTIONS:NULL
HEADER- MIDB	1. Element Name: SOURCE_DIGRAPH	2. Attribute Name: SOURCE DIGRAPH	3. Definition: Two character code indicating the source or provider of the information.	4. Data Type: char(2), NULL

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-HEADER- JCDB	ELEMENT NAME: PERCEPTION source qualifier code	ATTRIBUTE NAME: PERCEP_SRC_QUAL_CD	DEFINITION: The code which denotes the general intra-TOC source of a PERCEPTION.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: SOURCE_TRIGRAPH	2. Attribute Name: SOURCE TRIGRAPH	3. Definition: Source of the emitter, three letter designator for this source.	4. Data Type: char(3), NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK-CHANNEL serial count quantity	ATTRIBUTE NAME: NTWK_CHN_COUNT	DEFINITION: The identifier that represents the sequential number of a specific equivalent NETWORK-CHANNEL(s).	DATA TYPE: numeric NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: NETWORK identifier	ATTRIBUTE NAME: NETWORK_INDX	DEFINITION: The unique identifier for a specific NETWORK	DATA TYPE: integer serial integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL
-HEADER- MIDB	1. Element Name: ILAT	2. Attribute Name: Not displayed.	3. Definition: The geocentric latitude of the collector. The range of values for this field is from -324,000,000 to 324,000,000, representing (90 degrees south to 90 degrees north).	4. Data Type: int, NULL
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-MATERIEL-POINT latitude coordinate	PHYSICAL NAME: EN_MAT_PT_LAT	DEFINITION: The latitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT latitude coordinate	PHYSICAL NAME: CURRENT_LATITUDE	DEFINITION: The latitude of a specific ENEMY-ORG-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION-POINT latitude coordinate	PHYSICAL NAME: TGRT_PT_LAT	DEFINITION: The latitude of a specific SUPPORTED-D-TARGET-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(8,6)	NULL OPTION

-HEADER- JCDB ATTRIBUTE NAME: lat	PHYSICAL NAME: lat	DEFINITION: The latitude of a specific site or location as specified in the Gazetteer.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: EVENT-LOCATION latitude coordinate	PHYSICAL NAME: LAT	DEFINITION: The latitude of a specific ACTION-LOCATION according to WGS 84.	DATA TYPE: numeric(8,6)	NULL OPTION
-HEADER- MIDB	1. Element Name: ILLUMINATION_RATE	2. Attribute Name: ILLUMINATION RATE	3. Definition: Reciprocal of the time a target is illuminated by an active sensor during one scan period. For a continuous wave radar, the rate at which the radar beam returns to a previously identified target to update the targets position.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: SENSOR-TYPE scan rate	PHYSICAL NAME: SCAN_RATE_hz	DEFINITION: The rate, in hertz, of the rotational speed of a SENSOR-TYPE. (Primarily Radar)	DATA TYPE: integer	NULL OPTION
HEADER- JCDB	ELEMENT NAME: MUNITION footprint length dimension	ATTRIBUTE NAME: MUNTN_FTPRNT_LNGTH	DEFINITION: The dimension of the linear measurement of the longest length of the scan area within which a specific "smart" MUNITIONs targeting subsystem is expected to be effective. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: ILON	2. Attribute Name: Not displayed.	3. Definition: The geocentric longitude of the collector. The range of values for this field is from -648,000,000 to 648,000,000 representing (180 degrees west to 180 degrees east).	4. Data Type: int, NULL
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET-LOCATION-POINT longitude coordinate	ATTRIBUTE NAME: TGRT_PT_LON	DEFINITION: The longitude of a specific SUPPORTED-TARGET-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NOT NULL
HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION-POINT longitude coordinate	ATTRIBUTE NAME: CURRENT_LONGITUDE	DEFINITION: The longitude of a specific ENEMY-ORG-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-PERSON-POINT longitude	ATTRIBUTE NAME: LON	DEFINITION: The longitude of a specific ENEMY-PERSON-POINT	DATA TYPE: numeric(9,6) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FACILITY-POINT longitude coordinate	ATTRIBUTE NAME: FAC_PT_LON	DEFINITION: The longitude for a specific FACILITY-POINT according to the WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION-POINT longitude coordinate	ATTRIBUTE NAME: FEATPT_LON	DEFINITION: The longitude of a specific FEATURE-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NOT NULL NOT NULL

-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NOT NULL
MIDB	LOC_NAME	Location name for the coordinates	VARCHAR(54)	
JCDB	loc_NAME:	The name of a site or location as specified in the Gazetteer	VARCHAR(64)	gazetteer
JCDB	FEATPT_LON	The longitude of a specific FEATURE-LOCATION-POINT according to WGS 84	2 NUMERIC(9,6)	FEATURE-LOCATION-POINT FEATURE-LOCATION-POINT-HISTORY
-HEADER- MIDB	1. Element Name: MIL_AREA	2. Attribute Name: MIL AREA	3. Definition: Military district, region, or zone in which the geographic coordinates reside.	4. Data Type: char(5), NULL
-HEADER- JCDB ATTRIBUTE NAME: PLAN geolocation text	PHYSICAL NAME: PLAN_GEOLOC_TXT	DEFINITION: The brief textual description of an identifiable geographic region to which a specific PLAN applies.	DATA TYPE: varchar(60)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: FACILITY DODAAC identifier	ATTRIBUTE NAME: FAC_DODAAC	DEFINITION: The Department of Defense Activity Address Code for a specific FACILITY. The DODAAC field supports the "customer identity" of a Supply Point for interfaces to the Commercial systems for re-supply.	DATA TYPE: varchar(6) NOPTIONS:NULL
HEADER- MIDB	1. Element Name: MIL_GRID	2. Attribute Name: MIL GRID	3. Definition: Military Grid Reference System coordinates.	4. Data Type: varchar(15), NULL
-HEADER- JCDB ATTRIBUTE NAME: MAP grid system use code	PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: gsd_id	PHYSICAL NAME: gsd_id	DEFINITION: GSD code from Mil Std 2525B.	DATA TYPE: varchar(15)	NULL OPTION
-HEADER- MIDB	1. Element Name: MIL_GRID_SYS	2. Attribute Name: MIL GRID SYS	3. Definition: Indicates the grid system used in the development of the MIL_GRID coordinates.	4. Data Type: char(3), NULL

-HEADER- JCDB ATTRIBUTE NAME: MAP grid system use code	PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION
HEADER- JCDB ATTRIBUTE NAME: System Default	PHYSICAL NAME: SYS_DEFAULT sys_default SYS_DEFAULT	DEFINITION: The code that denotes if the filter is a system default or user defined. Attribute identifying a filter as a system default or user defined.	DATA TYPE: smallint smallint smallint	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: CANDIDATE-TARGET attitude angle	PHYSICAL NAME: CTRGT_ATTITUD_mils	DEFINITION: The angle specifying the directional alignment of the major (length) axis of a rectangular CANDIDATE-TARGET. Measured clockwise from the line of true north. Unit of Measure = mils	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: MSN_NAME	2. Attribute Name: MSN NAME	3. Definition: The name of the mission on which this information was collected.	4. Data Type: varchar(30)
-HEADER- JCDB ATTRIBUTE NAME: MISSION-COMPONENT text	PHYSICAL NAME: MISSION_TXT	DEFINITION: The text that provides MISSION information about a specific PLAN. [This field is designed to contain unstructured information related to Paragraph 2 of a standard Army Operations Plan or Order. May be redundant with other parts of the ACTION View.]	DATA TYPE: varchar(254)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET fire support BE number	PHYSICAL NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13)	NULL OPTION

-HEADER- JCDB	ELEMENT NAME: PLAN NAME: ATTRIBUTE NAME: PLAN_NAME: DEFINITION: The user generated name of a PLAN.	DATA TYPE: varchar(40) NOPTIONS:NULL	TABLES: PLAN	-END-
-HEADER- MIDB	1. Element Name: OBS_CONDITION_SECONDARY	2. Attribute Name: OBS CONDITION SECONDARY	3. Definition: Indicates the secondary physical manner of being or state of existence of the entity. A secondary physical condition which must be considered in the determination of a course of action. This element has been created to temporarily support USMTF - Operational Status information. It contains MIDB "CONDITION" values primarily, with some "OPER_STAT" and "ACTIVITY" values as well.	4. Data Type: char(4), NULL
-HEADER- JCDB ATTRIBUTE NAME: FACILITY-OPERATIONAL-STATUS condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific FACILITY. The physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action. (MIDB)	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: MATERIEL-OPERATIONAL-STATUS condition code	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the general operating condition of a specific MATERIEL as a representation of the physical manner of being or state of existence of the entity. A physical condition that must be considered in the determining of a course of action.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: CONDITION	PHYSICAL NAME: CONDITION	DEFINITION: The code that denotes the operational state of an ORGANIZATION.	DATA TYPE: varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-PERSON-OPERATION status code	PHYSICAL NAME: PEROP_STAT_CD	DEFINITION: The code that denotes the overall condition of a PERSON.	DATA TYPE: smallint	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: OPER_STATUS	PHYSICAL NAME: OPER_STATUS	DEFINITION: The code that denotes the over state of an object.	DATA TYPE: varchar(3) varchar(3) varchar(3)	NULL OPTION

-HEADER- MIDB	1. Element Name: OBS_LENGTH_UM	2. Attribute Name: OBS LENGTH UM	3. Definition: Unit of measure for OBS_LENGTH field value.	4. Data Type: char(9), NULL
-HEADER- JCDB	ELEMENT NAME: CANDIDATE-TARGET length dimension	ATTRIBUTE NAME: CTRGT_LENGTH_DIM_m	DEFINITION: The length of a CANDIDATE-TARGET. Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: NUCLEAR-FEATURE flash to bang time	ATTRIBUTE NAME: NFEAT_FLASH_BANG	DEFINITION: The duration from the time that a flash was observed to when the noise of detonation reached the observer.	DATA TYPE: integer NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: PERCEPTION end datetime	ATTRIBUTE NAME: PERCEP_END_DTTM	DEFINITION: The determined or observed end time for an event which has a PERCEPTION.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB ATTRIBUTE NAME: CANDIDATE-TARGET length dimension	PHYSICAL NAME: CTRGT_LENGTH_DIM_m	DEFINITION: The length of a CANDIDATE-TARGET. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: OBS_WIDTH_UM	2. Attribute Name: OBS WIDTH UM	3. Definition: Unit of measure for OBS_WIDTH field value.	4. Data Type: char(9), NULL

-HEADER- JCDB ATTRIBUTE NAME: CANDIDATE-TARGET width dimension	PHYSICAL NAME: CTRGT_WIDTH_DIM_m	DEFINITION: The width of a CANDIDATE-TARGET. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION minimum dimension	PHYSICAL NAME: TRGT_LOC_WIDTH_m	DEFINITION: The length of the secondary parameter of a SUPPORTED-TARGET-LOCATION. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: UTM	2. Attribute Name: UTM	3. Definition: Universal Transverse Mercator (UTM) grid coordinates.	4. Data Type: varchar(16), NULL
-HEADER- JCDB	ELEMENT NAME: MAP grid system use code	ATTRIBUTE NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint NOPTIONS:NULL
HEADER- MIDB	1. Element Name: WAC	2. Attribute Name: WAC	3. Definition: World Area Code (WAC) for which a designated place is located.	4. Data Type: char(4), NULL
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET MIDB_BE_NUMBER	ATTRIBUTE NAME: MIDB_BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific SUPPORTED-TARGET. Uniquely identifies the installation of the facility. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position on	DATA TYPE: varchar(10) NOPTIONS:NULL

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-HEADER- JCDB	ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10) NOPTIONS:NULL
HEADER- MIDB	1. Element Name: WATERBODY	2. Attribute Name: WATERBODY	3. Definition: Body(s) of water in which the geographic coordinates reside.	4. Data Type: char(2), NULL
-HEADER- JCDB	ELEMENT NAME: WATER-ROUTE amplifying text	ATTRIBUTE NAME: WET_RTE_AMP_TXT	DEFINITION: The alphanumeric field which lends detail about a specific WATER-ROUTE.	DATA TYPE: varchar(254) NOPTIONS:NULL

B.   **TRACK SIMILAR ATTRIBUTES**

Similar JCDB attributes from the track cluster are those matches highlighted or shaded in the following tables. MIDB attributes are not highlighted.

Database	Attribute Name	Attribute Definition	Data Type	Data Table/Entity
MIDB	AFFILIATION	Indicates the assessed threat of the entity. This element supports SYMBOL_CODE, as per MIL-STD 2525A.	char(1)	
JCDB	AFFILIATION_CD	The code that denotes the action or intend use, i.e., HOSTILE, FRIENDLY, SUSPECT..., of a battlefield object	3 VARCHAR(1)	ALLEGIANCE FEATURE ORGANIZATION
JCDB	ALLEGIANCE	The code that represents the current allegiance of a specific battlefield object. Though there may be some limited duplication(C2 Core 14392) (A) The coded look-up can return the varchar2 value and/or the country	5 VARCHAR(2)	ENEMY-ORGANIZATION ENEMY-PERSON ENEMY_MATERIEL FACILITY MATERIEL
MIDB	ALERT	An observation or a track may be given an alert status.	char(3), NULL	OBS, TRACK
JCDB	ORG_AD_WARNG_CD	The code that denotes the current air defense warning alert for a specific ORGANIZATION for a specific ORGANIZATION-OPERATIONAL-STATUS.	smallint	ORGANIZATION-OPERATIONAL-STATUS
JCDB	AIR_ALERT_STAT_CD	The code that denotes the alert status of AIR-ENGAGEMENT assets for an AIR-ENGAGEMENT.	smallint	AIR_ENGAGEMENT
MIDB	ALLEGIANCE	The DoD Standard Country Code designator for the country or political entity to which the entity owes its allegiance.	5 CHAR(3)	
JCDB	COUNTRY_CD or CODE	The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	2 VARCHAR(2)	COUNTRY PERSON
JCDB	COUNTRY	The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	4 VARCHAR(2)	EVENT-LOCATION FACILITY ORG-TYPE-CAPABILITY-NORM ORGANIZATION
MIDB	ALTITUDE UM	Unit of measure for the ALTITUDE field value.	char(9), NULL	OBS_REPORT, TRACK_LOC
JCDB	ALTITUDE_m	The altitude of an ENEMY airborne object above ground level which has a specific corresponding POINT location. Unit of Measure = meters. Altitude applies to objects capable of airborne flight. Elevation applies to fixed objects.	integer integer	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY
JCDB	ELEVATION_m	The elevation from MEAN SEA LEVEL for a specific object POINT. Unit of Measure = Meters	integer	FACILITY-POINT
JCDB	ALTITUDE_ft	The altitude in feet of a specific item POINT.	integer	FEATURE-LOCATION-POINT-HISTORY
JCDB	ACTUAL_ALTITUDE_ft	The measured or actual altitude in feet, above ground level, of a specific item POINT.	integer	FEATURE-LOCATION-POINT
JCDB	ALTITUDE_ft	The altitude of an airborne object above ground level which has a specific corresponding POINT location. Unit of Measure = Feet. Altitude applies to objects capable of airborne flight. Elevation applies to fixed objects.	integer	MATERIEL-POINT
JCDB	MET_ALTITUDE_DM_m	The linear dimension, measured in meters, that represents the altitude above the Earth's surface (i.e., ground level) at which a specific instance of MET-ALTITUDE is described.	integer	METEOROLOGIC-ALTITUDE
MIDB	ANNEX_TYPE	Indicates the specific type of sub-component being described. The sub-component could be an exit, a hazard or an obstruction.	char(6), NOT NULL	FAC_ANNEX
JCDB	E_ORG_FAC_INDX	The identifier that represents an ENEMY-ORGANIZATION-FACILITY-ASSOCIATION.	serial	ENEMY-ORGANIZATION-FACILITY
JCDB	FAC_DESIGN	The code that indicates the plan, layout, or arrangement of the FACILITY as it relates to the entity's physical vulnerability	varchar(4)	FACILITY
JCDB	FAC_SUBCAT_CD	The code that denotes the SUBCAT of a FACILITY	smallint	FACILITY

JCDB	FAC_DESCR_TXT	DEFINITION: The brief text field used to add detail to the description of a specific FACILITY.	varchar(254)	FACILITY
MIDB	AOU CONTAINMENT	For the given Area of Uncertainty (AOU), what percentage of containment is being achieved.	tinyint, NULL	OBS, TRACK_LOC
JCDB	ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object, expressed in units of meters.	integer integer	ENEMY-MATERIEL-POINT
JCDB	ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ENEMY PERSON POINT	integer	ENEMY-PERSON-POINT
JCDB	ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ACTION-LOCATION. Unit of Measure = Meters	integer	EVENT-LOCATION
JCDB	ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object-POINT. Unit of Measure = Meters	integer	FACILITY-POINT
MIDB	AOU LOB ERROR	The standard deviation of the Area of Uncertainty (AOU) Line of Bearing (LOB).	float, NULL	OBS, TRACK_LOC
JCDB	ACCURACY_QTY	The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION.	integer	ENEMY-TRACK-HISTORY
JCDB	VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	integer	ENEMY-TRACK-HISTORY
JCDB	ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION. The code representing the uncertainty in the estimate of a specific FRIENDLY-ORGANIZATION-POINT.	integer integer	FRIENDLY-ORGANIZATION-POINT FRIENDLY-TRACK-HISTORY
JCDB	ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific UNPLANNED-TARGET-LOCATION. Unit of Measure = Meters	integer	SUPPORTED-TARGET-LOCATION
MIDB	AOU TYPE	The type of Area of Uncertainty (AOU). If the AOU is a Line of Bearing (LOB) then the following fields are filled in: AOU_LOB_ERROR, AZIMUTH, COORD, SEMI_MAJOR, and SEMI_UM. If the type is an Ellipse / Position or a Bearing Box, then the following fields are filled in: AOU_CONTAINMENT, AZIMUTH, COORD, SEMI_MAJOR, SEMI_MINOR and SEMI_UM.	char(3), NULL	OBS, TRACK_LOC
JCDB	HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	float	AIR-ROUTE-SEGMENT
MIDB	ASSOC	3. Description: This is a description of the relationship between the two entities.	4. Structure: char(4), NOT NULL	DOC_MGMT_TIE, EQP_ELINT_MODE_TIE, EQP_IDX_PAR_TIE, EQP_IDX_TIE, EQP_TIE, EVENT_TIE, FAC_TIE, GEO_TIE, IND_TIE, NET_LINK_DTL_TIE, NET_LINK_TIE, NET_NODE_TIE, OBS_TIE, RMK_TIE, SIG_TIE, SOURCE_TIE, TGT_DTL_AIMPT_WPN_TIE, TGT_DTL_TIE, TGT_LIST_TIE, TGT_LIST_TIE_ORDER_TIE, TGT_MSN_TIE, TGT_OBJ_TIE, TGT_SYS_TIE, TRACK_TIE, UNIT_ALT_LOC_TIE, UNIT_TIE
JCDB	ACTASSC_TYP_CD	DEFINITION: The code that denotes the way one ACTION is related to another.	DATA TYPE: varchar(2)	ACTION-ASSOCIATION
JCDB	EVENT_ASSC_CD	DEFINITION: The code that denotes the manner in which EVENTs are related to one another.	DATA TYPE: varchar(4)	EVENT_ASSOCIATION
JCDB	FAC_DESIGN	DEFINITION: The code that indicates the plan, layout, or arrangement of the FACILITY as it relates to the entity's physical vulnerability	DATA TYPE: varchar(4)	FACILITY

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JCDB	FACASSC_TYP_CD	DEFINITION: The code that denotes the class of ASSOCIATION of a specific FACILITY with another. This code is the relation that the subject FACILITY has to the object FACILITY	DATA TYPE: varchar(4)	FACILITY-ASSOCIATION
JCDB	MAT_ASSC_TYP	DEFINITION: The code that denotes the class of association of a specific MATERIEL with another. This code is the relation that the "subject" MATERIEL has to the "object" MATERIEL.	DATA TYPE: smallint	MATERIEL-ASSOCIATION
JCDB	NTWRK_ASSC_TYP_CD	DEFINITION: The code that represents the way in which an "object" NETWORK is related to the "subject" NETWORK	DATA TYPE: smallint	NETWORK-ASSOCIATION
JCDB	ORG_ASSC_TYP_CD	DEFINITION: The code that denotes the class of association of a specific ORGANIZATION with another. This code (e.g., tactical control) is the relation that the object ORGANIZATION has to the subject ORGANIZATION.	DATA TYPE: smallint	ORGANIZATION-ASSOCIATION
JCDB	ORGTSK_ASSC_CAT	DEFINITION: The code that represents or denotes the type of relation between a specific ORGANIZATION and a specific TASK for a specific ORGANIZATION-TASK-ASSOCIATION.	DATA TYPE: smallint	ORGANIZATION-TASK
MIDB	ASSOC BEGIN DATE	The date the association began between the two entities.	varchar(8), NULL	DOC_MGMT_TIE, EQP_ELINT_MODE_TIE, EQP_IDX_PAR_TIE, EQP_IDX_TIE, EQP_TIE, EVENT_TIE, FAC_TIE, GEO_TIE, IND_TIE, NET_LINK_DTL_TIE, NET_LINK_TIE, NET_NODE_TIE, OBS_TIE, RMK_TIE, SIG_TIE, SOURCE_TIE, TGT_DTL_AIMPT_WPN_TIE, TGT_DTL_TIE, TGT_LIST_TIE, TGT_LIST_TIE_ORDER_TIE, TGT_MSN_TIE, TGT_OBJ_TIE, TGT_SYS_TIE, TRACK_TIE, UNIT_ALT_LOC_TIE, UNIT_TIE
JCDB	PLANASSC_EFCT_DTTM	The datetime when a PLAN-ASSOCIATION becomes effective.	datetime year to second	PLAN-ASSOCIATION
JCDB	NTWRK_ASSC_REQ_DT	The datetime in which a specific NETWORK-ASSOCIATION is required.	datetime year to second	NETWORK-ASSOCIATION
MIDB	ASSOC END DATE	The date the association ended between the two entities.	varchar(8), NULL	DOC_MGMT_TIE, EQP_ELINT_MODE_TIE, EQP_IDX_PAR_TIE, EQP_IDX_TIE, EQP_TIE, EVENT_TIE, FAC_TIE, GEO_TIE, IND_TIE, NET_LINK_DTL_TIE, NET_LINK_TIE, NET_NODE_TIE, OBS_TIE, RMK_TIE, SIG_TIE, SOURCE_TIE, TGT_DTL_AIMPT_WPN_TIE, TGT_DTL_TIE, TGT_LIST_TIE, TGT_LIST_TIE_ORDER_TIE, TGT_MSN_TIE, TGT_OBJ_TIE, TGT_SYS_TIE, TRACK_TIE, UNIT_ALT_LOC_TIE, UNIT_TIE
JCDB	ORG_EORG_END_DTTM	The actual termination date of a specific ORGANIZATION's association with a specific ENEMY-ORGANIZATION.	datetime year to second	ORG-ENEMY-ORG-ASSOCIATION
MIDB	AZIMUTH	The entity's orientation relative to a fixed reference direction. The horizontal angular distance from a fixed reference direction (AZIMUTH_REF) to an object or an object's orientation. This is measured clockwise in degrees. When associated with a fixed orientation for the object, values range from 0-179. When associated with an object's movement or the movement of the content's of the object, values range from 0-359, to indicate the direction of the flow or movement.	float	EQP_FORM, FAC_ANNEX, FAC_FORM, GEO_ELLIPSE, NET_LINK_FORM, OBS, TGT_DTL, TRACK_LOC
JCDB	HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	DATA TYPE: float	AIR-ROUTE-SEGMENT
JCDB	FAC_AZIMUTH	DEFINITION: The angle of rotational measurement measured clockwise from true north to the longest center line of a specific FACILITY. Degrees.	DATA TYPE: numeric(5,2)	FACILITY

MIDB	CALLSIGN	A word, number, letter or combination, used to represent or conceal the identity of a person, place, or thing. This entry will be the specific callsign used when communications are transmitted by referenced unit, controller, or subscriber.	varchar(54), NULL	NET_LINK_DTL, OBS_REPORT, TRACK
JCDB	PERSON_INDX	DEFINITION: The identifier that represents a human being.(Friendly or Neutral)	DATA TYPE: integer integer serial integer integer integer	MATERIEL-PERSON ORGANIZATION-PERSON PERSON PERSON-ADDRESS PERSON-OPERATIONAL-STATUS PERSON-PLAN
JCDB	E_PER_E_MAT_INDX	DEFINITION: The unique identifier that represents a specific ENEMY-PERSON-ENEMY-MATERIEL.	DATA TYPE: serial	ENEMY-PERSON-ENEMY-MATERIE
JCDB	IND_SK	DEFINITION: SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier for an ENEMY-PERSON. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	DATA TYPE: varchar(14)	ENEMY-PERSON
JCDB	PER_ID_TYPE	DEFINITION: The code that denotes the type of identification document that provides an ENEMY-PERSON's alternate identifier. (MIDB)	DATA TYPE: varchar(4)	ENEMY-PERSON
JCDB	PER_ID_NUM	DEFINITION: The number assigned to a specific ENEMY-PERSON. (MIDB)	DATA TYPE: varchar(54)	ENEMY-PERSON
	CATEGORY REF	3. Description: Indicates a reference to a CATEGORY. A CATEGORY is used to classify the entity by its product or the type of activity in which it is engaged. The installation records will contain all zeroes.	4. Structure: char(5)	FAC_XREF, OBS_REPORT, TGT_SYS_FAC, TRACK
JCDB	CATEGORY	DEFINITION: The code that denotes the class of FACILITY	DATA TYPE: varchar(5) varchar(5)	FACILITY FACILITY_TYPE
MIDB	CC	3. Description: Country in which the geographic coordinates reside.	Verify the following: char(2) char(2), NULL	TGT_OBJ, _loc_area (EQP, EVENT_LOC, FAC, FAC_ANNEX, GEO, IND_ADDRESS, NET_NODE, OBS, TGT_DTL, TRACK_LOC, UNIT, UNIT_ALT_LOC)
JCDB	CODE COUNTRY_CD	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2)	COUNTRY PERSON
JCDB	COUNTRY	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2) varchar(2) varchar(2)	EVENT-LOCATION FACILITY ORG-TYPE-CAPABILITY-NORM ORGANIZATION
-HEADER- MIDB	1. Element Name: CONTACT_QTY	2. Attribute Name: CONTACT QTY	3. Definition: The number of times this contact has been reported.	4. Data Type: int, NULL
-HEADER- JCDB	ELEMENT NAME: PERSON-TYPE-FEATURE-HOLDING current due in quantity	ATTRIBUTE NAME: DUEIN_CURRENT_QTY	DEFINITION: The quantity of a person-type due-in to a feature during the current reporting period of a specific PERSON-TYPE-FEATURE-HOLDING since the last PERSON-TYPE-FEATURE-HOLDING.	DATA TYPE: integer
-HEADER- JCDB	ELEMENT NAME: MATERIEL-ITEM-FEATURE-HOLDING quantity	ATTRIBUTE NAME: MATIFEAT_HLDNG_QTY	DEFINITION: The current quantity of a materiel-item at a feature during the current reporting period of a specific MATERIEL-ITEM-FEATURE-HOLDING since the last MATERIEL-ITEM-FEATURE-HOLDING.	DATA TYPE: integer

-HEADER-	JCDB	ELEMENT NAME: MATERIEL-ITEM-FEATURE-HOLDING 72 hour due in quantity	ATTRIBUTE NAME: DUEIN_D3_QTY	DEFINITION: The quantity of a materiel-item due-in to a feature within 72 hours of the reporting period of a specific MATERIEL-ITEM-FEATURE-HOLDING since the last MATERIEL-ITEM-FEATURE-HOLDING.	DATA TYPE: integer	
-HEADER-	JCDB	ELEMENT NAME: PERSON-TYPE-ORGANIZATION-HOLDING person type currently due-in quantity	ATTRIBUTE NAME: DUEIN_CURRENT_QTY	DEFINITION: The quantity of a person-type due-in during the current reporting period of a specific PERSON-TYPE-ORGANIZATION-HOLDING since the last PERSON-TYPE-ORGANIZATION-HOLDING.	DATA TYPE: integer	
-HEADER-	MIDB	1. Element Name: COORD	2. Attribute Name: COORD	3. Definition: Indicates any of the magnitudes that serve to define the position of a point by reference to a fixed figure, system of lines, etc.	4. Data Type: varchar(21)	
-HEADER-	JCDB	ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10)	
-HEADER-	JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT latitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LAT	DEFINITION: The latitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(8,6)	numeric(8,6)
-HEADER-	JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6)	numeric(9,6)
-HEADER-	JCDB	ELEMENT NAME: EVENT-LOCATION longitude coordinate	ATTRIBUTE NAME: LON	DEFINITION: The longitude of a specific ACTION-LOCATION according to WGS 84.	DATA TYPE: numeric(9,6)	

-HEADER- JCDB	ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10)
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION-POINT index	ATTRIBUTE NAME: FEATLOC_PT_INDX	DEFINITION: The unique value assigned to represent a specific FEATURE-LOCATION-POINT for a specific FEATURE and a specific LOCATION-POINT and to distinguish it from all other FEATURE-LOCATION-POINTs for that FEATURE and that LOCATION-POINT.	DATA TYPE: serial integer
-HEADER- JCDB	ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT enclosure radius number	ATTRIBUTE NAME: FPT_COORD_ROA	DEFINITION: The quantity of the radius of the circle that the FRIENDLY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
1. Element Name: COORD_DATETIME	2. Attribute Name: COORD DATETIME	3. Definition: The date on which a specific coordinate was reported or developed.	4. Data Type: Verify the following:	varchar(14)
-HEADER- JCDB	ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second

	1. Element Name: COORD_DATUM	2. Attribute Name: COORD DATUM	3. Definition: Datum used in production of this graphic.	4. Data Type: char(3)
-HEADER- MIDB				
-HEADER- JCDB	ELEMENT NAME: Systables TabNAME: ATTRIBUTE NAME: tabNAME: DEFINITION: Table name of a table that will be used to retrieve data for the specified Battlefield Object. Table name that will be used to identify the table where the filtering condition in the SQL for retrieving data for the specified Battlefield Object.	DATA TYPE: varchar(18) varchar(18) varchar(18) NOPTIONS:NOT NULL NOT NULL NOT NULL	TABLES: Battlefield-Association-Group Battlefield-Association-Group-Columns Filter-Condition	-END-
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION maximum elevation dimension	ATTRIBUTE NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION minimum altitude	ATTRIBUTE NAME: FEAT_LOC_MIN_ALT	DEFINITION: The altitude of the lowest point of the specific FEATURE referenced to the vertical DATUM of the World Geodetic System 1984(WGS 84)	DATA TYPE: integer NOPTIONS:NULL

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-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION minimum elevation dimension	ATTRIBUTE NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	ATTRIBUTE NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: COORD_ROA_CONF_LVL	2. Attribute Name: COORD ROA CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, coordinate circle of accuracy, has been horizontally positioned to within a specified horizontal accuracy. The coordinate circle of accuracy is defined as a circle with center located at COORD with radius of COORD_ROA.	4. Data Type: tinyint, NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1) numeric(6,1)
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the ENEMY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measurement = Meters	DATA TYPE: numeric(6,1) numeric(6,1)
-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
-HEADER- MIDB	1. Element Name: COURSE	2. Attribute Name: COURSE	3. Definition: Compass bearing of the entity measured in degrees.	4. Data Type: float, NULL
HEADER- JCDB	ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT bearing angle	ATTRIBUTE NAME: FORG_PT_BEARING_AN	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific ORGANIZATION at a specific POINT. Unit of Measure = degrees The rotational measurement clockwise from the line of true North to the direction of motion of a specific ORGANIZATION at a specific POINT. Unit of Measure = decigrams	DATA TYPE: numeric(5,2) numeric(5,2) NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT bearing angle	ATTRIBUTE NAME: COURSE	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific object at a specific POINT.	DATA TYPE: numeric(5,2) numeric(5,2) NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION-POINT bearing angle	ATTRIBUTE NAME: COURSE	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific ENEMY-ORGANIZATION at a specific POINT. Unit of Measure = Degrees	DATA TYPE: numeric(5,2) numeric(5,2) NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT bearing angle	ATTRIBUTE NAME: COURSE	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific object at a specific POINT.	DATA TYPE: numeric(5,2) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET bearing angle	ATTRIBUTE NAME: TARGET_BEARING	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific SUPPORTED-TARGET at a specific LOCATION. Unit of Measure = degrees	DATA TYPE: numeric(5,2) NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: COURSE_REF	2. Attribute Name: COURSE REF	3. Definition: The reference from which the COURSE is measured.	4. Data Type: char(3), NULL

-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET bearing angle	ATTRIBUTE NAME: TARGET_BEARING	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific SUPPORTED-TARGET at a specific LOCATION. Unit of Measure = degrees	DATA TYPE: numeric(5,2) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: BRIDGE construction type code	ATTRIBUTE NAME: BRIJ_AZMTH_ANG	DEFINITION: The angle, in degrees, of orientation of a BRIDGE measured clockwise from true north.	DATA TYPE: decimal(5,2) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: TRGT_SYMBOL_CD	ATTRIBUTE NAME: TRGT_SYMBOL_CD	DEFINITION: The GSD code which is provide for reference to TARGET symbols.	DATA TYPE: smallint smallint NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: CANDIDATE-TARGET attitude angle	ATTRIBUTE NAME: CTRGT_ATTITUD_mils	DEFINITION: The angle specifying the directional alignment of the major (length) axis of a rectangular CANDIDATE-TARGET. Measured clockwise from the line of true north. Unit of Measure = mils	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FACILITY azimuth angle	ATTRIBUTE NAME: FAC_AZIMUTH	DEFINITION: The angle of rotational measurement measured clockwise from true north to the longest center line of a specific FACILITY. Degrees.	DATA TYPE: numeric(5,2) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION orientation angle	ATTRIBUTE NAME: FEAT_LOC_ORIENTED	DEFINITION: The angle of rotational measurement measured clockwise from true North to the FEATURE s defining parameter. (For an instance of FEATURE-LOCATION, the value of this attribute is dependent on the values of FEATURE-LOCATION-category-code and FEATURE-LOCATION-subcategory-code.) The defining parameter is the shortest side of the defining rectangle for a "subcat-code" of ELLIPTICAL-REGION or REGULAR-REGION; or the left side of the sector central angle for a "subcat-code" of FAN-AREA.	DATA TYPE: decimal(5,2) decimal(5,2) NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: AIR-ROUTE-SEGMENT inbound magnetic azimuth angle	ATTRIBUTE NAME: HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	DATA TYPE: float NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: AIR-ROUTE-SEGMENT maximum speed	ATTRIBUTE NAME: INBND_AZIMUTH_ANG	DEFINITION: The angular difference between magnetic north and a given course inbound to an AIR-ROUTE-SEGMENT way-point.	DATA TYPE: decimal(5,2) NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: DATETIME_LAST_OBS	2. Attribute Name: DATETIME LAST OBS	3. Definition: Date or datetime of the last observation (OBS).	4. Data Type: varchar(14), NULL
-HEADER- JCDB	ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: MESSAGE receipt date	ATTRIBUTE NAME: MSG_RCEIPT_DTTM	DEFINITION: The date and time that the MESSAGE document was received.	DATA TYPE: datetime year to second NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: DELETE_POINTER	2. Attribute Name: DELETE POINTER	3. Definition: This indicates observations that should be ignored during correlation. (Y)es, ignore this observation during correlation. (N)o, use this observation during correlation.	4. Data Type: char(1), NULL
-HEADER- JCDB ATTRIBUTE NAME: OBSERVATION code		PHYSICAL NAME: OBSERV_CD	DEFINITION: The code that denotes whether or not a object_FEATURE was visually observed (TRUE) or not (FALSE).	DATA TYPE: smallint smallint NULL OPTION

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		1. Element Name: DESTINATION_COORD	2. Attribute Name: DESTINATION COORD	3. Definition: An estimated coordinate of the destination of the observation or track.	4. Data Type: varchar(21), NULL
-HEADER-	MIDB				
-HEADER-	JCDB	ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT accuracy quantity	PHYSICAL NAME: ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION. The code representing the uncertainty in the estimate of a specific FRIENDLY-ORGANIZATION-POINT.	DATA TYPE: integer integer
-HEADER-	JCDB	ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT enclosure radius number	PHYSICAL NAME: FPT_COORD_ROA	DEFINITION: The quantity of the radius of the circle that the FRIENDLY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
-HEADER-	JCDB	ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	DATA TYPE: integer
-HEADER-	JCDB	ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT accuracy quantity	PHYSICAL NAME: ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION.	DATA TYPE: integer
HEADER-	JCDB	ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION accuracy quantity	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific UNPLANNED-TARGET-LOCATION. Unit of Measure = Meters	DATA TYPE: integer
-HEADER-	JCDB	ATTRIBUTE NAME	ENEMY-PERSON-POINT accuracy quantity	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ENEMY PERSON POINT
-HEADER-	JCDB	ATTRIBUTE NAME: EVENT-LOCATION accuracy code	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ACTION-LOCATION. Unit of Measure = Meters	DATA TYPE: integer
-HEADER-	JCDB	ATTRIBUTE NAME: FACILITY-POINT accuracy quantity code	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object-POINT. Unit of Measure = Meters	DATA TYPE: integer
-HEADER-	MIDB	1. Element Name: DESTINATION_DATETIME	2. Attribute Name: DESTINATION DATETIME	3. Definition: The date or datetime when an observation or track will reach the estimated destination coordinate (DESTINATION_COORD).	4. Data Type: varchar(14), NULL
-HEADER-	JCDB	ATTRIBUTE NAME: MATERIEL-ITEM-FACILITY-HOLDING actual reporting datetime	ATTRIBUTE NAME: REPORT_ACTUAL_DTTM	DEFINITION: The datetime a specific MATERIEL-ITEM-FACILITY-HOLDING is reported.	DATA TYPE: datetime year to second datetime year to second
-HEADER-	JCDB	ATTRIBUTE NAME: PERCEPTION end datetime	ATTRIBUTE NAME: PERCEP_END_DTTM	DEFINITION: The determined or observed end time for an event which has a PERCEPTION.	DATA TYPE: datetime year to second
-HEADER-	JCDB	ATTRIBUTE NAME: ENEMY-ORG-POINT-OVERLAY application datetime	ATTRIBUTE NAME: EORG_PT_APPL_DT	DEFINITION: The datetime that a specific ENEMY-ORG-POINT location has been applied to a specific OVERLAY.	DATA TYPE: datetime year to second

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-HEADER- MIDB	1. Element Name: DESTINATION_SYMBOL_CODE	2. Attribute Name: DESTINATION SYMBOL CODE	3. Definition: A symbol code for the estimated destination of the observation or track. A standard scheme for symbol coding enabling the transfer, display and use of symbols and graphics among information systems, as per MIL-STD 2525A, and supported by the element AFFILIATION.	4. Data Type: varchar(15), NULL
-HEADER- JCDB ATTRIBUTE NAME: gsd_id	PHYSICAL NAME: gsd_id	DEFINITION: GSD code from Mil Std 2525B.	DATA TYPE: varchar(15)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-SYMBOL code	PHYSICAL NAME: SYMBOL_CD	DEFINITION: The code that denotes the class of a FEATURE-SYMBOL.	DATA TYPE: varchar(15)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL symbol code	ATTRIBUTE NAME: EQUIP_SYMBOL_CD	DEFINITION: The code that denotes the symbol that represents an ENEMY-MATERIEL	DATA TYPE: varchar(15) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-SYMBOL code	ATTRIBUTE NAME: SYMBOL_CD	DEFINITION: The code that denotes the class of a FEATURE-SYMBOL.	DATA TYPE: varchar(15) NOPTIONS:NULL

-HEADER- MIDB	1. Element Name: ECHELON	2. Attribute Name: ECHELON	3. Definition: Organizational level of the unit.	4. Data Type: char(4)
	-HEADER- JCDB ATTRIBUTE NAME: ECHELON_CD	PHYSICAL NAME: ECHELON_CD	DEFINITION: The code that denotes a class to which a unit belongs that is defined as the lowest structural level or point at which organizational control or authority of an ORGANIZATION-TYPE is concentrated	DATA TYPE: smallint
-HEADER- JCDB ATTRIBUTE NAME: FEATURE echelon code	PHYSICAL NAME: ECHELON_CD	DEFINITION: The code that denotes an organizational class to which a FEATURE belongs that is defined as the lowest structural level or point at which organizational control or authority is concentrated and provides some specification to the size of the FEATURE.	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: ECM_TECHNIQUE	2. Attribute Name: ECM TECHNIQUE	3. Definition: The method or technique employed by electronic warfare equipment to degrade or damage an enemies radar. Also, the electronic countermeasures (ECM) technique employed against communication and non-communications electronics.	4. Data Type: char(9), NULL
-HEADER- JCDB ATTRIBUTE NAME: EADD_TYP_CD	PHYSICAL NAME: EADD_TYP_CD	DEFINITION: The code that denotes the method used to deliver the ()-FEATURE agent.	DATA TYPE: smallint	NULL OPTION

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-HEADER- MIDB	1. Element Name: ELEVATION_ACC	2. Attribute Name: ELEVATION ACC	3. Definition: Linear Error (at ELEVATION_CONF_LVL assurance) of the value in the ELEVATION field.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: FACILITY grade dimension	PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_CONF_LVL	2. Attribute Name: ELEVATION CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, ELEVATION linear accuracy, has been vertically positioned to within a specified vertical accuracy.	4. Data Type: tinyint, NULL
-HEADER- JCDB ATTRIBUTE NAME: FACILITY-POINT vertical precision code	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the precision for specifying the elevation of an object along a normal to horizontal plane. This code measures the accuracy of its FACILITY-POINT location in the "2" dimension.	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION

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-HEADER- JCDB ATTRIBUTE NAME: FACILITY grade dimension	PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_DATUM	2. Attribute Name: ELEVATION DATUM	3. Definition: The vertical datum of the ellipsoid to which the ELEVATION value is referenced.	4. Data Type: char(3), NULL
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION minimum elevation dimension	PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION

-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION maximum elevation dimension	PHYSICAL NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_DATUM	2. Attribute Name: ELEVATION DATUM	3. Definition: The vertical datum of the ellipsoid to which the ELEVATION value is referenced.	4. Data Type: char(3), NULL
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

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HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION minimum elevation dimension	PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION	2. Attribute Name: ELEVATION	3. Definition: Ground elevation of the geographic coordinates (above or below) a referenced ellipsoid vertical datum, usually WGS_84. This field is supported by: ELEVATION_ACC + ELEVATION_CONF_LVL + ELEVATION_DATUM + ELEVATION_DERIV + ELEVATION_DERIV_ACC + ELEVATION_DERIV_ACC_UM + ELEVATION_UM.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION minimum elevation dimension	PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION maximum elevation dimension	PHYSICAL NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: WEAPON-TYPE elevation minimum angle	PHYSICAL NAME: WPN_MIN_ELVAT_ANG	DEFINITION: The angle from the horizontal centerline of a vertically steerable WEAPON-TYPE to the most extreme downward position it can be physically rotated without moving its base of support.	DATA TYPE: decimal(6,5)	NULL OPTION

-HEADER- JCDB ATTRIBUTE NAME: FRIENDLY-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from the level specified by the FRIENDLY-ORG-POINT elevation category code for a specific FRIENDLY-ORG- POINT.	DATA TYPE: integer	NULL OPTION
-HEADER- MIDB	1. Element Name: ELEVATION_DERIV_ACC	2. Attribute Name: ELEVATION DERIV ACC	3. Definition: Indicates the plus or minus error assessed against the method used to derive the elevation, ELEVATION_DERIV. This derivation error is used along with the source error in order to correctly assess a precision targeting elevation.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity denoting the precision for specifying the elevation of an item POINT along a normal to horizontal plane.	DATA TYPE: integer integer	NULL OPTION
HEADER- MIDB	1. Element Name: ELEVATION_MSL_ACC	2. Attribute Name: ELEVATION MSL ACC	3. Definition: Linear Error (at ELEVATION_MSL_CONF_LVL assurance) of the value in the ELEVATION_MSL field.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT vertical precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION

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-HEADER- MIDB	1. Element Name: ELEVATION_MSL_CONF_LVL	2. Attribute Name: ELEVATION MSL CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, ELEVATION_MSL linear accuracy, has been vertically positioned to within a specified vertical accuracy.	4. Data Type: tinyint, NULL
	-HEADER- JCDB ATTRIBUTE NAME: FACILITY grade dimension	PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)
-HEADER- MIDB	1. Element Name: ELEVATION_MSL_DERIV_ACC	2. Attribute Name: ELEVATION MSL DERIV ACC	3. Definition: Indicates the plus or minus error assessed against the method used to derive the elevation, ELEVATION_MSL_DERIV. This derivation error is used along with the source error in order to correctly assess a precision targeting elevation.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	DATA TYPE: integer	NULL OPTION

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-HEADER- MIDB	1. Element Name: ELEVATION_MSL_UM	2. Attribute Name: ELEVATION MSL UM	3. Definition: Unit of measure for ELEVATION_MSL field value.	4. Data Type: char(9), NULL
-HEADER- JCDB ATTRIBUTE NAME: FEATURE-LOCATION-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from MSL (Mean Sea Level) specified by the FEATURE-LOCATION-POINT elevation category code for a specific FEATURE-LOCATION-POINT. Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: LAND-GEO-FEATURE tree canopy height dimension	PHYSICAL NAME: LNDFEAT_CANOPY_HT	DEFINITION: The tree canopy height dimension of a specific LAND-GEO-FEATURE. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

-HEADER- MIDB	1. Element Name: ELEVATION_UM	2. Attribute Name: ELEVATION UM	3. Definition: Unit of measure for ELEVATION field value.	4. Data Type: char(9), NULL
-HEADER- JCDB ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT elevation dimension	PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from the level specified by the FRIENDLY-ORG-POINT elevation category code for a specific FRIENDLY-ORG- POINT. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
HEADER- MIDB	1. Element Name: ELNOT	2. Attribute Name: ELNOT	3. Definition: The primary five character Electronic Intelligence ELINT notation established by NSA for non-communications electronic emissions. Used to preserve original signal identification in case of modification by subsequent processing.	4. Data Type: char(5)
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET fire support BE number	PHYSICAL NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13)	NULL OPTION

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	1. Element Name:	2. Attribute Name:	3. Definition: A one-up-number used to group operating parameters of a radar. Uniquely identifies one of the modes that belong to an equipment or track.	4. Data Type: int
-HEADER- MIDB	EMITTER_MODE	EMITTER MODE		
-HEADER- JCDB ATTRIBUTE NAME: PERCEPTION identifier	PHYSICAL NAME: PERCEP_REF_INDX	DEFINITION: The number which denotes a specific PERCEPTION. A serial index.	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: PERCEPTION input identifier	PHYSICAL NAME: PERCEP_INPUT_ID	DEFINITION: The MAC address of the record creator. The unique input identifier that represents a specific PERCEPTION.	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE scanning type	ATTRIBUTE NAME: SNSR_SCAN_CD	DEFINITION: The code that denotes the type of scanning employed by a SENSOR-TYPE.	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: EQUIPMENT-TYPE id	ATTRIBUTE NAME: MAT_ITM_ID	DEFINITION: The identifier that represents a specific MATERIEL-ITEM.	DATA TYPE: integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL
-HEADER- MIDB	1. Element Name: EQP_CODE_REF	2. Attribute Name: EQP CODE REF	3. Definition: Reported equipment code for an item of equipment. Valid equipment codes are determined by DIA and are maintained by DIA.	4. Data Type: char(7), NULL
-HEADER- JCDB	ELEMENT NAME: CTIL_IND_CD	ATTRIBUTE NAME: CTIL_IND_CD	DEFINITION: The code that denotes a specific MATERIEL-ITEM as being on the Commanders Tracked Item List (CTIL) for a specific ORGANIZATION.	DATA TYPE: smallint smallint NOPTIONS:NULL NULL

HEADER- MIDB	1. Element Name: EXTERNAL_ID	2. Attribute Name: EXTERNAL ID	3. Definition: The current unique identifier assigned to the observation or track by the system forwarding the data.	4. Data Type: Verify the following:
-HEADER- JCDB ATTRIBUTE NAME: Battlefield Object Input Identifier	PHYSICAL NAME: batlfld_obj_id	DEFINITION: Unique Identifier for a Battlefield Object	DATA TYPE: integer integer integer integer integer	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET midb O-suffix identifier	PHYSICAL NAME: MIDB_O_SUFFIX	DEFINITION: The identifier which denotes the BASIC ENCYCLOPEDIA (BE) number for a specific SUPPORTED-TARGET that carries the "O" suffix. Uniquely identifies a facility or demographic area in conjunction with a BE_NUMBER. Permissible Values: [A-Z][A-Z] Pos. 1-2. SYSTEM ASSIGNED RECORD_ORIGINATOR. The organization creating the facility or demographic area. DIA installation records created prior to IDB generation of OSUFFIX contain DD. [0-9][0-9][0-9] Pos. 3-5 A one-up number.	DATA TYPE: varchar(5)	NULL OPTION

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-HEADER- JCDB	ELEMENT NAME: ORGANIZATION identifier	ATTRIBUTE NAME: ORG_ID	DEFINITION: The specific identifier for a ORGANIZATION.	DATA TYPE: integer in NOPTIONS:NOT NULL NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL
-HEADER- MIDB	1. Element Name: EXTERNAL_ID_PREV	2. Attribute Name: EXTERNAL ID PREV	3. Definition: The previous unique identifier assigned to the observation or track by the system forwarding the data.	4. Data Type: varchar(30), NULL
-HEADER- JCDB	ELEMENT NAME: PLAN version identifier	ATTRIBUTE NAME: PLAN_VERSION_ID	DEFINITION: The unique user generated identifier that denotes the initial (i.e. Version 1) and the subsequent variations of the original PLAN which is used together with the PLAN identifier so as not to divorce the VERSION from the PLAN.	DATA TYPE: varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NULL NOT NULL NOT NULL NOT NULL

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-HEADER- MIDB	1. Element Name: EXTERNAL_TGT_SYS_ID	2. Attribute Name: EXTERNAL TGT SYS ID	3. Definition: A unique identifier for a target system used to cross reference between different tracking systems.	4. Data Type: varchar(15), NULL
-HEADER- JCDB	ELEMENT NAME: ENG_TGT_NUM	ATTRIBUTE NAME: MSN_TGT_ID	DEFINITION: This attribute defines the number that will identify, correlate, and associate data concerning a specific target across units and roles. The number consists of an alphanumeric string of six characters. The first two positions are letters while the last four are digits. Target numbers are sequenced.	DATA TYPE: varchar(6) NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET fire support BE number	ATTRIBUTE NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13) NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: FORCE	2. Attribute Name: FORCE	3. Definition: An aggregation of military units within a single service (i.e., ARMY, AIR FORCE, etc.) which operates under a single authority to accomplish a common mission.	4. Data Type: char(4)
-HEADER- JCDB	ELEMENT NAME: EXECUTION-COMPONENT text	ATTRIBUTE NAME: EXECUTION_TXT	DEFINITION: The brief text description of the planned execution of a specific operation by forces.	DATA TYPE: varchar(254) NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: SERVICE-SUPPORT-COMPONENT text	ATTRIBUTE NAME: SERVICE_SPT_TXT	DEFINITION: The brief text description of the service SUPPORT to be provided for friendly forces for a given planned operation	DATA TYPE: varchar(254) NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: Type code	ATTRIBUTE NAME: TYPE_CD	DEFINITION: Attribute to identify the Battlefield object group for example, as Unit, Battlefield Geometries	DATA TYPE: smallint NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: SITUATION-COMPONENT text	ATTRIBUTE NAME: SITUATION_TXT	DEFINITION: The brief text description of the anticipated situational scenario to be encountered by friendly forces for a given planned operation	DATA TYPE: varchar(254) NOPTIONS:NULL

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HEADER- MIDB	1. Element Name: GRAPHIC_SERIES	2. Attribute Name: GRAPHIC SERIES	3. Definition: A designator indicating the type of graphic used.	4. Data Type: char(5)
-HEADER- JCDB	ELEMENT NAME: Picture Identifier	ATTRIBUTE NAME: picture_indx	DEFINITION: Unique Identifier assigned to a picture.	DATA TYPE: serial Integer NOPTIONS:NOT NULL NOT NULL
HEADER- JCDB	ELEMENT NAME: OVERLAY NAME: ATTRIBUTE NAME: OLAY_NAME: DEFINITION: The user applied text which provides the plan and user identifies for an OVERLAY.	DATA TYPE: varchar(54) NOPTIONS:NOT NULL	TABLES: OVERLAY	-END-
-HEADER- JCDB	ELEMENT NAME: OVERLAY Owner identifier	ATTRIBUTE NAME: OWNER	DEFINITION: The unique identifier for the owner of the OVERLAY.	DATA TYPE: varchar(64) NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: GRAPHIC_AGENCY	2. Attribute Name: GRAPHIC AGENCY	3. Definition: Indicates the Agency which produced the graphic.	4. Data Type: varchar(15)
-HEADER- JCDB ATTRIBUTE NAME: AIR-ROUTE-SEGMENT bidirectional indicator code	PHYSICAL NAME: AIR_TRFC_CNTRL_CD	DEFINITION: The code that denotes the agency providing air traffic services for an AIR-ROUTE-SEGMENT.	DATA TYPE: smallint	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: PLAN-OVERLAY identifier	PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial	NULL OPTION

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-HEADER- MIDB	1. Element Name: GRAPHIC_CC	2. Attribute Name: GRAPHIC CC	3. Definition: Indicates the code of country which produced the graphic.	4. Data Type: char(2)
	-HEADER- JCDB ATTRIBUTE NAME: COUNTRY code	PHYSICAL NAME: CODE COUNTRY_CD	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2)
-HEADER- JCDB	ELEMENT NAME: subject OVERLAY	ATTRIBUTE NAME: OVERLAY_INDX	DEFINITION: The unique identifier for an overlay	DATA TYPE: integer NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: OVERLAY-ASSOCIATION relationship type code	ATTRIBUTE NAME: OLAY_ASSC_REL	DEFINITION: The code which denotes the way in which a subject OVERLAY is associated with a object OVERLAY.	DATA TYPE: smallint NOPTIONS:NOT NULL
-HEADER- MIDB	1. Element Name: GRAPHIC_ED_DATE	2. Attribute Name: GRAPHIC ED DATE	3. Definition: The edition date of the map graphic.	4. Data Type: varchar(8)
-HEADER- JCDB ATTRIBUTE NAME: MAP edition identifier	PHYSICAL NAME: MAP_EDITION_ID	DEFINITION: The unique identifier which indicates the edition of a particular MAP document.	DATA TYPE: varchar(15)	NULL OPTION

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-HEADER- JCDB ATTRIBUTE NAME: PLAN-OVERLAY identifier	PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: Effective Datetime	PHYSICAL NAME: effct_dttm	DEFINITION: Date and time of last update. Datetime that a specific definition was last modified.	DATA TYPE: datetime year to second datetime year to second	NULL OPTION
-HEADER- MIDB	1. Element Name: GRAPHIC_SHEET	2. Attribute Name: GRAPHIC SHEET	3. Definition: The sheet number of the graphic for which this designation is appropriate, or the organization producing the chart may be entered in these positions. Sheet numbers for the JOG series are entered as follows: NI 15-04.	4. Data Type: varchar(15)

-HEADER- JCDB ATTRIBUTE NAME: PERCEPTION identifier	PHYSICAL NAME: PERCEP_REF_INDX	DEFINITION: The number which denotes a specific PERCEPTION. A serial index.	DATA TYPE: integer	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: PLAN-OVERLAY identifier	ATTRIBUTE NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial NOPTIONS:NOT NULL
-HEADER- JCDB	ELEMENT NAME: DOCUMENT identifier	ATTRIBUTE NAME: DOC_INDX	DEFINITION: The unique identifier for a specific DOCUMENT	DATA TYPE: serial integer integer integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NULL NOT NULL
-HEADER- JCDB	ELEMENT NAME: MAP series identifier	ATTRIBUTE NAME: MAP_SERIES_ID	DEFINITION: The sequential identifier that represents a collection of plane surface representations of the earth's surface.	DATA TYPE: varchar(15) NOPTIONS:NOT NULL
-HEADER- MIDB	1. Element Name: ILAT	2. Attribute Name: Not displayed.	3. Definition: The geocentric latitude of the collector. The range of values for this field is from -324,000,000 to 324,000,000, representing (90 degrees south to 90 degrees north).	4. Data Type: int, NULL
-HEADER- JCDB ATTRIBUTE NAME: ENEMY-MATERIEL-POINT latitude coordinate	PHYSICAL NAME: EN_MAT_PT_LAT	DEFINITION: The latitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION

-HEADER- JCDB ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT latitude coordinate	PHYSICAL NAME: CURRENT_LATITUDE	DEFINITION: The latitude of a specific ENEMY-ORG-POINT according to WGS 84.	DATA TYPE: numeric(8,6)	numeric(8,6)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION-POINT latitude coordinate	PHYSICAL NAME: TGRT_PT_LAT	DEFINITION: The latitude of a specific SUPPORTED-D-TARGET-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(8,6)		NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: lat	PHYSICAL NAME: lat	DEFINITION: The latitude of a specific site or location as specified in the Gazetteer.	DATA TYPE: numeric(8,6)	numeric(8,6)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: EVENT-LOCATION latitude coordinate	PHYSICAL NAME: LAT	DEFINITION: The latitude of a specific ACTION-LOCATION according to WGS 84.	DATA TYPE: numeric(8,6)		NULL OPTION
-HEADER- MIDB	1. Element Name: ILON	2. Attribute Name: Not displayed.	3. Definition: The geocentric longitude of the collector. The range of values for this field is from -648,000,000 to 648,000,000 representing (180 degrees west to 180 degrees east).	4. Data Type: int, NULL	
-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET-LOCATION-POINT longitude coordinate	ATTRIBUTE NAME: TGRT_PT_LON	DEFINITION: The longitude of a specific SUPPORTED-TARGET-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NOT NULL	
HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NULL NULL	
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION-POINT longitude coordinate	ATTRIBUTE NAME: CURRENT_LONGITUDE	DEFINITION: The longitude of a specific ENEMY-ORG-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NULL NULL	

-HEADER- JCDB	ELEMENT NAME: ENEMY-PERSON-POINT longitude	ATTRIBUTE NAME: LON	DEFINITION: The longitude of a specific ENEMY-PERSON-POINT	DATA TYPE: numeric(9,6) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FACILITY-POINT longitude coordinate	ATTRIBUTE NAME: FAC_PT_LON	DEFINITION: The longitude for a specific FACILITY-POINT according to the WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FEATURE-LOCATION-POINT longitude coordinate	ATTRIBUTE NAME: FEATPT_LON	DEFINITION: The longitude of a specific FEATURE-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NOT NULL NOT NULL
-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NOT NULL
-HEADER- MIDB	1. Element Name: LAND_TYPE	2. Attribute Name: LAND TYPE	3. Definition: Indicates the type of land-based network structure being represented in the data.	4. Data Type: char(4), NOT NULL
-HEADER- JCDB ATTRIBUTE NAME: NETWORK topology type code	PHYSICAL NAME: TOPOLOGY_TYP_CD	DEFINITION: The code that denotes the physical structure of the NETWORK.	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: LOC_REASON	2. Attribute Name: LOC REASON	3. Definition: Indicates the reason that the entity is at that location.	4. Data Type: char(9), NOT NULL
-HEADER- JCDB ATTRIBUTE NAME: ORGANIZATION-MISSION-AREA reason text	PHYSICAL NAME: OMA_REASON_TXT	DEFINITION: The text that describes the purpose for an ORGANIZATION to support a specific MISSION-AREA.	DATA TYPE: varchar(254)	NULL OPTION
MIDB	LOC_NAME	Location name for the coordinates	VARCHAR(54)	
JCDB	loc_NAME:	The name of a site or location as specified in the Gazetteer	VARCHAR(64)	gazetteer
JCDB	FEATPT_LON	The longitude of a specific FEATURE-LOCATION-POINT according to WGS 84	2 NUMERIC(9,6)	FEATURE-LOCATION-POINT FEATURE-LOCATION-POINT-HISTORY
-HEADER- MIDB	1. Element Name: MIL_AREA	2. Attribute Name: MIL AREA	3. Definition: Military district, region, or zone in which the geographic coordinates reside.	4. Data Type: char(5), NULL

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-HEADER- JCDB ATTRIBUTE NAME: PLAN geolocation text	PHYSICAL NAME: PLAN_GEOLOC_TXT	DEFINITION: The brief textual description of an identifiable geographic region to which a specific PLAN applies.	DATA TYPE: varchar(60)	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: FACILITY DODAAC identifier	ATTRIBUTE NAME: FAC_DODAAC	DEFINITION: The Department of Defense Activity Address Code for a specific FACILITY. The DODAAC field supports the "customer identity" of a Supply Point for interfaces to the Commercial systems for re-supply.	DATA TYPE: varchar(6) NOPTIONS:NULL
HEADER- MIDB	1. Element Name: MIL_GRID	2. Attribute Name: MIL GRID	3. Definition: Military Grid Reference System coordinates.	4. Data Type: varchar(15), NULL
-HEADER- JCDB ATTRIBUTE NAME: MAP grid system use code	PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: gsd_id	PHYSICAL NAME: gsd_id	DEFINITION: GSD code from Mil Std 2525B.	DATA TYPE: varchar(15)	NULL OPTION
-HEADER- MIDB	1. Element Name: MIL_GRID_SYS	2. Attribute Name: MIL GRID SYS	3. Definition: Indicates the grid system used in the development of the MIL_GRID coordinates.	4. Data Type: char(3), NULL
-HEADER- JCDB ATTRIBUTE NAME: MAP grid system use code	PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION
HEADER- JCDB ATTRIBUTE NAME: System Default	PHYSICAL NAME: SYS_DEFAULT sys_default SYS_DEFAULT	DEFINITION: The code that denotes if the filter is a system default or user defined. Attribute identifying a filter as a system default or user defined.	DATA TYPE: smallint smallint smallint	NULL OPTION

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-HEADER- JCDB ATTRIBUTE NAME: CANDIDATE-TARGET attitude angle	PHYSICAL NAME: CTRGT_ATTITUD_mils	DEFINITION: The angle specifying the directional alignment of the major (length) axis of a rectangular CANDIDATE-TARGET. Measured clockwise from the line of true north. Unit of Measure = mils	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: MSN_SECONDARY	2. Attribute Name: MSN SECONDARY	3. Definition: Indicates the secondary type of mission that an entity is organized and equipped to perform.	4. Data Type: char(4), NULL
-HEADER- JCDB	ELEMENT NAME: MSN_SPECIALTY	ATTRIBUTE NAME: MSN_SPECIALTY	DEFINITION: The specific type(s) of mission that an ORGANIZATION-TYPE performs.	DATA TYPE: varchar(4) varchar(4) NOPTIONS:NOT NULL NOT NULL
-HEADER- JCDB	ELEMENT NAME: OB_TYPE	ATTRIBUTE NAME: OB_TYPE	DEFINITION: The code that denotes the service or service affiliation type to which an ORG-TYPE belongs or is operationally responsible as it pertains to the manner of the battle mission it performs.	DATA TYPE: varchar(1) NOPTIONS:NULL

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		1. Element Name: MSN_SECONDARY_SPECIALTY	2. Attribute Name: MSN SECONDARY SPECIALTY	3. Definition: Indicates the secondary specialty type of mission that an entity is organized and equipped to perform.	4. Data Type: char(4), NULL
-HEADER-	MIDB				
-HEADER-	JCDB	ELEMENT NAME: MSN_SPECIALTY	ATTRIBUTE NAME: MSN_SPECIALTY	DEFINITION: The specific type(s) of mission that an ORGANIZATION-TYPE performs.	DATA TYPE: varchar(4) varchar(4) NOPTIONS:NOT NULL NOT NULL

			3. Definition: Indicates the principal specialty type of mission that an entity is organized and equipped to perform.	
-HEADER- MIDB	1. Element Name: MSN_PRIMARY_SPECIALTY	2. Attribute Name: MSN PRIMARY SPECIALTY		4. Data Type: char(4), NULL
-HEADER- JCDB ATTRIBUTE NAME: MSN_SPECIALTY	PHYSICAL NAME: MSN_SPECIALTY	DEFINITION: The specific type(s) of mission that an ORGANIZATION-TYPE performs.	DATA TYPE: varchar(4) varchar(4)	NULL OPTION
-HEADER- JCDB ATTRIBUTE NAME: NETWORK-NODE primary mission amplification text	PHYSICAL NAME: NETNODE_PRIM_MSN	DEFINITION: The text that describes the principal mission of a NETWORK-NODE.	DATA TYPE: varchar(254)	NULL OPTION
-HEADER- MIDB	1. Element Name: NET_LINK_TYPE_SPECIFIC	2. Attribute Name: NET LINK TYPE SPECIFIC	3. Definition: Indicates a further specification of the network type.	4. Data Type: char(3), NULL

-HEADER- JCDB ATTRIBUTE NAME: NETWORK-CIRCUIT conditioning requirement indicator code	PHYSICAL NAME: NTWK_CIRCON_REQ_CD	DEFINITION: The code that indicates a circuit conditioning is required for a specific NETWORK-CIRCUIT.	DATA TYPE: smallint	NULL OPTION
-HEADER- MIDB	1. Element Name: PGRI_MEAN	2. Attribute Name: PGRI MEAN	3. Definition: The (weighted or unweighted) average pulse group repetition interval (PGRI) value for all reports in the track.	4. Data Type: float, NULL
-HEADER- JCDB ATTRIBUTE NAME: SENSOR-TYPE frequency upper limit rate	PHYSICAL NAME: FQY_UPP_LIM_RT	DEFINITION: The rate of the largest number of complete oscillations of an electromagnetic wave per unit time that a SENSOR-TYPE can receive for processing.	DATA TYPE: smallint	NULL OPTION
-HEADER- JCDB	ELEMENT NAME: SENSOR-TYPE scan rate	ATTRIBUTE NAME: SCAN_RATE_hz	DEFINITION: The rate, in hertz, of the rotational speed of a SENSOR-TYPE. (Primarily Radar)	DATA TYPE: integer NOPTIONS:NULL
-HEADER- MIDB	1. Element Name: OPER_STATUS	2. Attribute Name: OPER STATUS	3. Definition: Degree to which an entity is ready to perform the overall operational mission(s) for which it was organized and equipped.	4. Data Type: Verify the following:
-HEADER- JCDB	ELEMENT NAME: OPER_STATUS	ATTRIBUTE NAME: OPER_STATUS	DEFINITION: The code that denotes the over state of an object.	DATA TYPE: varchar(3) varchar(3) varchar(3) NOPTIONS:NULL NULL NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-ORGANIZATION operational status code	ATTRIBUTE NAME: OPER_STATUS	DEFINITION: The code that denotes the over state of an object.	DATA TYPE: varchar(3) NOPTIONS:NULL
-HEADER- JCDB ATTRIBUTE NAME: ORGANIZATION-OPERATIONAL-STATUS combat readiness code	PHYSICAL NAME: ORG_CBAT_REDINESS	DEFINITION: The code that denotes a commanders assessment of an organization's readiness to perform combat missions.	DATA TYPE: smallint	NULL OPTION

HEADER- MIDB	1. Element Name: SPEED_UM	2. Attribute Name: SPEED UM	3. Definition: Unit of measure for SPEED field value.	4. Data Type: char(9), NULL
-HEADER- JCDB	ELEMENT NAME: ENEMY-MATERIEL-POINT speed rate	ATTRIBUTE NAME: SPEED_kmh	DEFINITION	The value that represents the motion of a specific object at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kmh
HEADER- JCDB	ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT speed rate	ATTRIBUTE NAME: FORG_SPEED_kmh	DEFINITION: The value that represents the motion of a specific ORGANIZATION at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kmh The value that represents the motion of a specific ORGANIZATION at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kph	DATA TYPE: smallint smallint NOPTIONS:NULL NULL
-HEADER- JCDB	ELEMENT NAME: MATERIEL-POINT speed rate	ATTRIBUTE NAME: SPEED_kmh	DEFINITION: The value that represents the motion of a specific object at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kmh	DATA TYPE: smallint NOPTIONS:NULL
HEADER- MIDB	1. Element Name: WAC	2. Attribute Name: WAC	3. Definition: World Area Code (WAC) for which a designated place is located.	4. Data Type: char(4), NULL

-HEADER- JCDB	ELEMENT NAME: SUPPORTED-TARGET MIDB_BE_NUMBER	ATTRIBUTE NAME: MIDB_BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific SUPPORTED-TARGET. Uniquely identifies the installation of the facility. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position on	DATA TYPE: varchar(10) NOPTIONS:NULL
-HEADER- JCDB	ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10) NOPTIONS:NULL

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HEADER- MIDB	1. Element Name: WATERBODY	2. Attribute Name: WATERBODY	3. Definition: Body(s) of water in which the geographic coordinates reside.	4. Data Type: char(2), NULL
-HEADER- JCDB	ELEMENT NAME: WATER-ROUTE amplifying text	ATTRIBUTE NAME: WET_RTE_AMP_TXT	DEFINITION: The alphanumeric field which lends detail about a specific WATER-ROUTE.	DATA TYPE: varchar(254) NOPTIONS:NULL

C.   TARGET SIMILAR ATTRIBUTES

Similar JCDB attributes from the target cluster are those matches highlighted or shaded in the following tables. MIDB attributes are not highlighted.

Attribute Name	Attribute Definition	Data Type	Data Table/Entity
AFFILIATION	Indicates the assessed threat of the entity. This element supports SYMBOL_CODE, as per MIL-STD 2525A.	char(1)	
AFFILIATION_CD	The code that denotes the action or intend use, i.e., HOSTILE, FRIENDLY, SUSPECT..., of a battlefield object	3 VARCHAR(1)	ALLEGIANCE FEATURE ORGANIZATION
ALLEGIANCE	The code that represents the current allegiance of a specific battlefield object. Though there may be some limited duplication(C2 Core 14392) (A) The coded look-up can return the varchar2 value and/or the country	5 VARCHAR(2)	ENEMY-ORGANIZATION ENEMY-PERSON ENEMY_MATERIEL FACILITY MATERIEL
ALERT	An observation or a track may be given an alert status.	char(3), NULL	OBS, TRACK
ORG_AD_WARNG_CD	The code that denotes the current air defense warning alert for a specific ORGANIZATION for a specific ORGANIZATION-OPERATIONAL-STATUS.	smallint	ORGANIZATION-OPERATIONAL-STATUS
AIR_ALERT_STAT_CD	The code that denotes the alert status of AIR-ENGAGEMENT assets for an AIR-ENGAGEMENT.	smallint	AIR_ENGAGEMENT
ALLEGIANCE	The DoD Standard Country Code designator for the country or political entity to which the entity owes its allegiance.	5 CHAR(3)	
COUNTRY_CD or CODE	The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	2 VARCHAR(2)	COUNTRY PERSON
COUNTRY	The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	4 VARCHAR(2)	EVENT-LOCATION FACILITY ORG-TYPE-CAPABILITY-NORM ORGANIZATION
ALTITUDE UM	Unit of measure for the ALTITUDE field value.	char(9), NULL	OBS_REPORT, TRACK_LOC
ALTITUDE_m	The altitude of an ENEMY airborne object above ground level which has a specific corresponding POINT location. Unit of Measure = meters. Altitude applies to objects capable of airborne flight. Elevation applies to fixed objects.	integer integer	ENEMY-MATERIEL-POINT ENEMY-MATERIEL-POINT-HISTORY
ELEVATION_m	The elevation from MEAN SEA LEVEL for a specific object POINT. Unit of Measure = Meters	integer	FACILITY-POINT
ALTITUDE_ft	The altitude in feet of a specific item POINT.	integer	FEATURE-LOCATION-POINT-HISTORY
ACTUAL_ALTITUDE_ft	The measured or actual altitude in feet, above ground level, of a specific item POINT.	integer	FEATURE-LOCATION-POINT
ALTITUDE_ft	The altitude of an airborne object above ground level which has a specific corresponding POINT location. Unit of Measure = Feet. Altitude applies to objects capable of airborne flight. Elevation applies to fixed objects.	integer	MATERIEL-POINT
MET_ALTITUDE_DM_m	The linear dimension, measured in meters, that represents the altitude above the Earth's surface (i.e., ground level) at which a specific instance of MET-ALTITUDE is described.	integer	METEOROLOGIC-ALTITUDE
ANNEX_TYPE	Indicates the specific type of sub-component being described. The sub-component could be an exit, a hazard or an obstruction.	char(6), NOT NULL	FAC_ANNEX
E_ORG_FAC_INDX	The identifier that represents an ENEMY-ORGANIZATION-FACILITY-ASSOCIATION.	serial	ENEMY-ORGANIZATION-FACILITY
FAC_DESIGN	The code that indicates the plan, layout, or arrangement of the FACILITY as it relates to the entity's physical vulnerability	varchar(4)	FACILITY
FAC_SUBCAT_CD	The code that denotes the SUBCAT of a FACILITY	smallint	FACILITY
FAC_DESCR_TXT	DEFINITION: The brief text field used to add detail to the description of a specific FACILITY.	varchar(254)	FACILITY

AOU CONTAINMENT	For the given Area of Uncertainty (AOU), what percentage of containment is being achieved.	tinyint, NULL	OBS, TRACK_LOC
ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object, expressed in units of meters.	integer integer	ENEMY-MATERIEL-POINT
ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ENEMY PERSON POINT	integer	ENEMY-PERSON-POINT
ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ACTION-LOCATION. Unit of Measure = Meters	integer	EVENT-LOCATION
ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object-POINT. Unit of Measure = Meters	integer	FACILITY-POINT
AOU LOB ERROR	The standard deviation of the Area of Uncertainty (AOU) Line of Bearing (LOB).	float, NULL	OBS, TRACK_LOC
ACCURACY_QTY	The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION.	integer	ENEMY-TRACK-HISTORY
VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	integer	ENEMY-TRACK-HISTORY
ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION. The code representing the uncertainty in the estimate of a specific FRIENDLY-ORGANIZATION.	integer integer	FRIENDLY-ORGANIZATION-POINT FRIENDLY-TRACK-HISTORY
ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific UNPLANNED-TARGET-LOCATION. Unit of Measure = Meters	integer	SUPPORTED-TARGET-LOCATION
AOU TYPE	The type of Area of Uncertainty (AOU). If the AOU is a Line of Bearing (LOB) then the following fields are filled in: AOU_LOB_ERROR, AZIMUTH, COORD, SEMI_MAJOR, and SEMI_UM. If the type is an Ellipse / Position or a Bearing Box, then the following fields are filled in: AOU_CONTAINMENT, AZIMUTH, COORD, SEMI_MAJOR, SEMI_MINOR and SEMI_UM.	char(3), NULL	OBS, TRACK_LOC
HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	float	AIR-ROUTE-SEGMENT
ASSOC	3. Description: This is a description of the relationship between the two entities.	4. Structure: char(4), NOT NULL	DOC_MGMT_TIE, EQP_ELINT_MODE_TIE, EQP_IDX_PAR_TIE, EQP_IDX_TIE, EQP_TIE, EVENT_TIE, FAC_TIE, GEO_TIE, IND_TIE, NET_LINK_DTL_TIE, NET_LINK_TIE, NET_NODE_TIE, OBS_TIE, RMK_TIE, SIG_TIE, SOURCE_TIE, TGT_DTL_AIMPT_WPN_TIE, TGT_DTL_TIE, TGT_LIST_TIE, TGT_LIST_TIE_ORDER_TIE, TGT_MSN_TIE, TGT_OBJ_TIE, TGT_SYS_TIE, TRACK_TIE, UNIT_ALT_LOC_TIE, UNIT_TIE
ACTASSC_TYP_CD	DEFINITION: The code that denotes the way one ACTION is related to another.	DATA TYPE: varchar(2)	ACTION-ASSOCIATION
EVENT_ASSC_CD	DEFINITION: The code that denotes the manner in which EVENTs are related to one another.	DATA TYPE: varchar(4)	EVENT_ASSOCIATION
FAC_DESIGN	DEFINITION: The code that indicates the plan, layout, or arrangement of the FACILITY as it relates to the entity's physical vulnerability	DATA TYPE: varchar(4)	FACILITY
FACASSC_TYP_CD	DEFINITION: The code that denotes the class of ASSOCIATION of a specific FACILITY with another. This code is the relation that the subject FACILITY has to the object FACILITY	DATA TYPE: varchar(4)	FACILITY-ASSOCIATION

MAT_ASSC_TYP	DEFINITION: The code that denotes the class of association of a specific MATERIEL with another. This code is the relation that the "subject" MATERIEL has to the "object" MATERIEL.	DATA TYPE: smallint	MATERIEL-ASSOCIATION
NTWRK_ASSC_TYP_CD	DEFINITION: The code that represents the way in which an "object" NETWORK is related to the "subject" NETWORK	DATA TYPE: smallint	NETWORK-ASSOCIATION
ORG_ASSC_TYP_CD	DEFINITION: The code that denotes the class of association of a specific ORGANIZATION with another. This code (e.g., tactical control) is the relation that the object ORGANIZATION has to the subject ORGANIZATION.	DATA TYPE: smallint	ORGANIZATION-ASSOCIATION
ORGTSK_ASSC_CAT	DEFINITION: The code that represents or denotes the type of relation between a specific ORGANIZATION and a specific TASK for a specific ORGANIZATION-TASK-ASSOCIATION.	DATA TYPE: smallint	ORGANIZATION-TASK
ASSOC BEGIN DATE	The date the association began between the two entities.	varchar(8), NULL	DOC_MGMT_TIE, EQP_ELINT_MODE_TIE, EQP_IDX_PAR_TIE, EQP_IDX_TIE, EQP_TIE, EVENT_TIE, FAC_TIE, GEO_TIE, IND_TIE, NET_LINK_DTL_TIE, NET_LINK_TIE, NET_NODE_TIE, OBS_TIE, RMK_TIE, SIG_TIE, SOURCE_TIE, TGT_DTL_AIMPT_WPN_TIE, TGT_DTL_TIE, TGT_LIST_TIE, TGT_LIST_TIE_ORDER_TIE, TGT_MSN_TIE, TGT_OBJ_TIE, TGT_SYS_TIE, TRACK_TIE, UNIT_ALT_LOC_TIE, UNIT_TIE
PLANASSC_EFCT_DTTM	The datetime when a PLAN-ASSOCIATION becomes effective.	datetime year to second	PLAN-ASSOCIATION
NTWRK_ASSC_REQ_DT	The datetime in which a specific NETWORK-ASSOCIATION is required.	datetime year to second	NETWORK-ASSOCIATION
ASSOC END DATE	The date the association ended between the two entities.	varchar(8), NULL	DOC_MGMT_TIE, EQP_ELINT_MODE_TIE, EQP_IDX_PAR_TIE, EQP_IDX_TIE, EQP_TIE, EVENT_TIE, FAC_TIE, GEO_TIE, IND_TIE, NET_LINK_DTL_TIE, NET_LINK_TIE, NET_NODE_TIE, OBS_TIE, RMK_TIE, SIG_TIE, SOURCE_TIE, TGT_DTL_AIMPT_WPN_TIE, TGT_DTL_TIE, TGT_LIST_TIE, TGT_LIST_TIE_ORDER_TIE, TGT_MSN_TIE, TGT_OBJ_TIE, TGT_SYS_TIE, TRACK_TIE, UNIT_ALT_LOC_TIE, UNIT_TIE
ORG_EORG_END_DTTM	The actual termination date of a specific ORGANIZATION's association with a specific ENEMY-ORGANIZATION.	datetime year to second	ORG-ENEMY-ORG-ASSOCIATION
AZIMUTH	The entity's orientation relative to a fixed reference direction. The horizontal angular distance from a fixed reference direction (AZIMUTH_REF) to an object or an object's orientation. This is measured clockwise in degrees. When associated with a fixed orientation for the object, values range from 0-179. When associated with an object's movement or the movement of the content's of the object, values range from 0-359, to indicate the direction of the flow or movement.	float	EQP_FORM, FAC_ANNEX, FAC_FORM, GEO_ELLIPSE, NET_LINK_FORM, OBS, TGT_DTL, TRACK_LOC
HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	DATA TYPE: float	AIR-ROUTE-SEGMENT
FAC_AZIMUTH	DEFINITION: The angle of rotational measurement measured clockwise from true north to the longest center line of a specific FACILITY. Degrees.	DATA TYPE: numeric(5,2)	FACILITY

CALLSIGN	A word, number, letter or combination, used to represent or conceal the identity of a person, place, or thing. This entry will be the specific callsign used when communications are transmitted by referenced unit, controller, or subscriber.	varchar(54), NULL	NET_LINK_DTL, OBS_REPORT, TRACK
PERSON_INDX	DEFINITION: The identifier that represents a human being.(Friendly or Neutral)	DATA TYPE: integer integer serial integer integer integer	MATERIEL-PERSON ORGANIZATION-PERSON PERSON PERSON-ADDRESS PERSON-OPERATIONAL-STATUS PERSON-PLAN
E_PER_E_MAT_INDX	DEFINITION: The unique identifier that represents a specific ENEMY-PERSON-ENEMY-MATERIEL.	DATA TYPE: serial	ENEMY-PERSON-ENEMY-MATERIE
IND_SK	DEFINITION: SYSTEM GENERATED - SURROGATE KEY. The unique database server identifier for an ENEMY-PERSON. A numeric value, ranging from 10,000 - 99,999. The database server id will be unique for each dbserver in the MIDB worldwide network. The DB Server ID is followed by a one-up-number. A one-up-number series is maintained for each surrogate key.	DATA TYPE: varchar(14)	ENEMY-PERSON
PER_ID_TYPE	DEFINITION: The code that denotes the type of identification document that provides an ENEMY-PERSON's alternate identifier. (MIDB)	DATA TYPE: varchar(4)	ENEMY-PERSON
PER_ID_NUM	DEFINITION: The number assigned to a specific ENEMY-PERSON. (MIDB)	DATA TYPE: varchar(54)	ENEMY-PERSON
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CATEGORY REF	3. Description: Indicates a reference to a CATEGORY. A CATEGORY is used to classify the entity by its product or the type of activity in which it is engaged. The installation records will contain all zeroes.	4. Structure: char(5)	FAC_XREF, OBS_REPORT, TGT_SYS_FAC, TRACK
CATEGORY	DEFINITION: The code that denotes the class of FACILITY	DATA TYPE: varchar(5) varchar(5)	FACILITY FACILITY_TYPE
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CC	3. Description: Country in which the geographic coordinates reside.	Verify the following: char(2) char(2), NULL	TGT_OBJ, _loc_area (EQP, EVENT_LOC, FAC, FAC_ANNEX, GEO, IND_ADDRESS, NET_NODE, OBS, TGT_DTL, TRACK_LOC, UNIT, UNIT_ALT_LOC)
CODE COUNTRY_CD	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2)	COUNTRY PERSON
COUNTRY	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2) varchar(2) varchar(2)	EVENT-LOCATION FACILITY ORG-TYPE-CAPABILITY-NORM ORGANIZATION
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1. Element Name: CONTACT_QTY	2. Attribute Name: CONTACT QTY	3. Definition: The number of times this contact has been reported.	4. Data Type: int, NULL
ELEMENT NAME: PERSON-TYPE-FEATURE-HOLDING current due in quantity	ATTRIBUTE NAME: DUEIN_CURRENT_QTY	DEFINITION: The quantity of a person-type due-in to a feature during the current reporting period of a specific PERSON-TYPE-FEATURE-HOLDING since the last PERSON-TYPE-FEATURE-HOLDING.	DATA TYPE: integer
ELEMENT NAME: MATERIEL-ITEM-FEATURE-HOLDING quantity	ATTRIBUTE NAME: MATIFEAT_HLDNG_QTY	DEFINITION: The current quantity of a materiel-item at a feature during the current reporting period of a specific MATERIEL-ITEM-FEATURE-HOLDING since the last MATERIEL-ITEM-FEATURE-HOLDING.	DATA TYPE: integer
ELEMENT NAME: MATERIEL-ITEM-FEATURE-HOLDING 72 hour due in quantity	ATTRIBUTE NAME: DUEIN_D3_QTY	DEFINITION: The quantity of a materiel-item due-in to a feature within 72 hours of the reporting period of a specific MATERIEL-ITEM-FEATURE-HOLDING since the last MATERIEL-ITEM-FEATURE-HOLDING.	DATA TYPE: integer

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ELEMENT NAME: PERSON-TYPE-ORGANIZATION-HOLDING person type currently due-in quantity	ATTRIBUTE NAME: DUEIN_CURRENT_QTY	DEFINITION: The quantity of a person-type due-in during the current reporting period of a specific PERSON-TYPE-ORGANIZATION-HOLDING since the last PERSON-TYPE-ORGANIZATION-HOLDING.	DATA TYPE: integer
1. Element Name: COORD	2. Attribute Name: COORD	3. Definition: Indicates any of the magnitudes that serve to define the position of a point by reference to a fixed figure, system of lines, etc.	4. Data Type: varchar(21)
ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10)
ELEMENT NAME: ENEMY-MATERIEL-POINT latitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LAT	DEFINITION: The latitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)
ELEMENT NAME: ENEMY-MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6)
ELEMENT NAME: EVENT-LOCATION longitude coordinate	ATTRIBUTE NAME: LON	DEFINITION: The longitude of a specific ACTION-LOCATION according to WGS 84.	DATA TYPE: numeric(9,6)

ELEMENT NAME: FACILITY BE identifier	ATTRIBUTE NAME: BE_NUMBER	DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num	DATA TYPE: varchar(10)
ELEMENT NAME: FEATURE-LOCATION-POINT index	ATTRIBUTE NAME: FEATLOC_PT_INDX	DEFINITION: The unique value assigned to represent a specific FEATURE-LOCATION-POINT for a specific FEATURE and a specific LOCATION-POINT and to distinguish it from all other FEATURE-LOCATION-POINTs for that FEATURE and that LOCATION-POINT.	DATA TYPE: serial integer
ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT enclosure radius number	ATTRIBUTE NAME: FPT_COORD_ROA	DEFINITION: The quantity of the radius of the circle that the FRIENDLY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
ELEMENT NAME: MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
2. Attribute Name: COORD DATETIME	3. Definition: The date on which a specific coordinate was reported or developed.	4. Data Type: Verify the following:	varchar(14)
ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second

1. Element Name: COORD_DATUM	2. Attribute Name: COORD DATUM	3. Definition: Datum used in production of this graphic.	4. Data Type: char(3)
ELEMENT NAME: Systables TabNAME: ATTRIBUTE NAME: tabNAME: DEFINITION: Table name of a table that will be used to retrieve data for the specified Battlefield Object. Table name that will be used to identify the table where the filtering condition in the SQL for retrieving data for the specified Battlefield Object.	DATA TYPE: varchar(18) varchar(18) varchar(18) NOPTIONS:NOT NULL NOT NULL NOT NULL	TABLES: Battlefield-Association-Group Battlefield-Association-Group-Columns Filter-Condition	-END-
ELEMENT NAME: FEATURE-LOCATION maximum elevation dimension	ATTRIBUTE NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer NOPTIONS:NULL NULL
ELEMENT NAME: FEATURE-LOCATION minimum altitude	ATTRIBUTE NAME: FEAT_LOC_MIN_ALT	DEFINITION: The altitude of the lowest point of the specific FEATURE referenced to the vertical DATUM of the World Geodetic System 1984(WGS 84)	DATA TYPE: integer NOPTIONS:NULL

ELEMENT NAME: FEATURE-LOCATION minimum elevation dimension	ATTRIBUTE NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer NOPTIONS:NULL NULL
ELEMENT NAME: SUPPORTED-TARGET-LOCATION minimum elevation dimension	ATTRIBUTE NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer NOPTIONS:NULL
1. Element Name: COORD_ROA_CONF_LVL	2. Attribute Name: COORD ROA CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, coordinate circle of accuracy, has been horizontally positioned to within a specified horizontal accuracy. The coordinate circle of accuracy is defined as a circle with center located at COORD with radius of COORD_ROA.	4. Data Type: tinyint, NULL
ELEMENT NAME: ENEMY-MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1) numeric(6,1)
ELEMENT NAME: ENEMY-ORGANIZATION-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the ENEMY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measurement = Meters	DATA TYPE: numeric(6,1) numeric(6,1)
ELEMENT NAME: MATERIEL-POINT enclosure radius number	ATTRIBUTE NAME: COORD_ROA	DEFINITION: The quantity of the radius of the circle that the MATERIEL-POINT coordinate is contained within at the 90% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
1. Element Name: COURSE	2. Attribute Name: COURSE	3. Definition: Compass bearing of the entity measured in degrees.	4. Data Type: float, NULL
ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT bearing angle	ATTRIBUTE NAME: FORG_PT_BEARING_AN	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific ORGANIZATION at a specific POINT. Unit of Measure = degrees The rotational measurement clockwise from the line of true North to the direction of motion of a specific ORGANIZATION at a specific POINT. Unit of Measure = decigrams	DATA TYPE: numeric(5,2) numeric(5,2) NOPTIONS:NULL NULL
ELEMENT NAME: ENEMY-MATERIEL-POINT bearing angle	ATTRIBUTE NAME: COURSE	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific object at a specific POINT.	DATA TYPE: numeric(5,2) numeric(5,2) NOPTIONS:NULL NULL
ELEMENT NAME: ENEMY-ORGANIZATION-POINT bearing angle	ATTRIBUTE NAME: COURSE	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific ENEMY-ORGANIZATION at a specific POINT. Unit of Measure = Degrees	DATA TYPE: numeric(5,2) numeric(5,2) NOPTIONS:NULL NULL
ELEMENT NAME: MATERIEL-POINT bearing angle	ATTRIBUTE NAME: COURSE	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific object at a specific POINT.	DATA TYPE: numeric(5,2) NOPTIONS:NULL
ELEMENT NAME: SUPPORTED-TARGET bearing angle	ATTRIBUTE NAME: TARGET_BEARING	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific SUPPORTED-TARGET at a specific LOCATION. Unit of Measure = degrees	DATA TYPE: numeric(5,2) NOPTIONS:NULL
1. Element Name: COURSE_REF	2. Attribute Name: COURSE REF	3. Definition: The reference from which the COURSE is measured.	4. Data Type: char(3), NULL

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ELEMENT NAME: SUPPORTED-TARGET bearing angle	ATTRIBUTE NAME: TARGET_BEARING	DEFINITION: The rotational measurement clockwise from the line of true North to the direction of motion of a specific SUPPORTED-TARGET at a specific LOCATION. Unit of Measure = degrees	DATA TYPE: numeric(5,2) NOPTIONS:NULL
ELEMENT NAME: BRIDGE construction type code	ATTRIBUTE NAME: BRIJ_AZMTH_ANG	DEFINITION: The angle, in degrees, of orientation of a BRIDGE measured clockwise from true north.	DATA TYPE: decimal(5,2) NOPTIONS:NULL
ELEMENT NAME: TRGT_SYMBOL_CD	ATTRIBUTE NAME: TRGT_SYMBOL_CD	DEFINITION: The GSD code which is provide for reference to TARGET symbols.	DATA TYPE: smallint smallint NOPTIONS:NULL NULL
ELEMENT NAME: CANDIDATE-TARGET attitude angle	ATTRIBUTE NAME: CTRGT_ATTITUD_mils	DEFINITION: The angle specifying the directional alignment of the major (length) axis of a rectangular CANDIDATE-TARGET. Measured clockwise from the line of true north. Unit of Measure = mils	DATA TYPE: smallint NOPTIONS:NULL
ELEMENT NAME: FACILITY azimuth angle	ATTRIBUTE NAME: FAC_AZIMUTH	DEFINITION: The angle of rotational measurement measured clockwise from true north to the longest center line of a specific FACILITY. Degrees.	DATA TYPE: numeric(5,2) NOPTIONS:NULL
ELEMENT NAME: FEATURE-LOCATION orientation angle	ATTRIBUTE NAME: FEAT_LOC_ORIENTED	DEFINITION: The angle of rotational measurement measured clockwise from true North to the FEATURE s defining parameter. (For an instance of FEATURE-LOCATION, the value of this attribute is dependent on the values of FEATURE-LOCATION-category-code and FEATURE-LOCATION-subcategory-code.) The defining parameter is the shortest side of the defining rectangle for a "subcat-code" of ELLIPTICAL-REGION or REGULAR-REGION; or the left side of the sector central angle for a "subcat-code" of FAN-AREA.	DATA TYPE: decimal(5,2) decimal(5,2) NOPTIONS:NULL NULL
ELEMENT NAME: AIR-ROUTE-SEGMENT inbound magnetic azimuth angle	ATTRIBUTE NAME: HEADING_TOLERANCE	DEFINITION: The measurement in degrees of bearing that can be tolerated within a specific AIR-ROUTE-SEGMENT.	DATA TYPE: float NOPTIONS:NULL
ELEMENT NAME: AIR-ROUTE-SEGMENT maximum speed	ATTRIBUTE NAME: INBND_AZIMUTH_ANG	DEFINITION: The angular difference between magnetic north and a given course inbound to an AIR-ROUTE-SEGMENT way-point.	DATA TYPE: decimal(5,2) NOPTIONS:NULL
1. Element Name: DATETIME_LAST_OBS	2. Attribute Name: DATETIME LAST OBS	3. Definition: Date or datetime of the last observation (OBS).	4. Data Type: varchar(14), NULL
ELEMENT NAME: DOCUMENT date	ATTRIBUTE NAME: DOC_DTTM	DEFINITION: The datetime provided for a DOCUMENT.	DATA TYPE: datetime year to second NOPTIONS:NULL
ELEMENT NAME: MESSAGE receipt date	ATTRIBUTE NAME: MSG_RCEIPT_DTTM	DEFINITION: The date and time that the MESSAGE document was received.	DATA TYPE: datetime year to second NOPTIONS:NULL
1. Element Name: DELETE_POINTER	2. Attribute Name: DELETE POINTER	3. Definition: This indicates observations that should be ignored during correlation. (Y)es, ignore this observation during correlation. (N)o, use this observation during correlation.	4. Data Type: char(1), NULL
PHYSICAL NAME: OBSERV_CD	DEFINITION: The code that denotes whether or not a object_FEATURE was visually observed (TRUE) or not (FALSE).	DATA TYPE: smallint smallint	NULL OPTION

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1. Element Name: DESTINATION_COORD	2. Attribute Name: DESTINATION COORD	3. Definition: An estimated coordinate of the destination of the observation or track.	4. Data Type: varchar(21), NULL
ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT accuracy quantity	PHYSICAL NAME: ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION. The code representing the uncertainty in the estimate of a specific FRIENDLY-ORGANIZATION-POINT.	DATA TYPE: integer integer
ATTRIBUTE NAME: FRIENDLY-ORGANIZATION-POINT enclosure radius number	PHYSICAL NAME: FPT_COORD_ROA	DEFINITION: The quantity of the radius of the circle that the FRIENDLY-ORG-POINT coordinate is contained within at the 95% level of confidence. Unit of Measure = Meters	DATA TYPE: numeric(6,1)
ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT precision quantity	PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	DATA TYPE: integer
ATTRIBUTE NAME: ENEMY-ORGANIZATION-POINT accuracy quantity	PHYSICAL NAME: ACCURACY_QTY	DEFINITION: The quantity in meters that represents the uncertainty in the estimate of a specific item LOCATION.	DATA TYPE: integer
ATTRIBUTE NAME: SUPPORTED-TARGET-LOCATION accuracy quantity	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific UNPLANNED-TARGET-LOCATION. Unit of Measure = Meters	DATA TYPE: integer
ATTRIBUTE NAME	ENEMY-PERSON-POINT accuracy quantity	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ENEMY PERSON POINT
ATTRIBUTE NAME: EVENT-LOCATION accuracy code	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The code representing the uncertainty in the estimate of a specific ACTION-LOCATION. Unit of Measure = Meters	DATA TYPE: integer
ATTRIBUTE NAME: FACILITY-POINT accuracy quantity code	ATTRIBUTE NAME: ACCURACY_QTY	DEFINITION: The quantity representing the uncertainty in the estimate of a specific object-POINT. Unit of Measure = Meters	DATA TYPE: integer

1. Element Name: DESTINATION_DATETIME	2. Attribute Name: DESTINATION DATETIME	3. Definition: The date or datetime when an observation or track will reach the estimated destination coordinate (DESTINATION_COORD).	4. Data Type: varchar(14), NULL
ATTRIBUTE NAME: MATERIEL-ITEM-FACILITY-HOLDING actual reporting datetime	ATTRIBUTE NAME: REPORT_ACTUAL_DTTM	DEFINITION: The datetime a specific MATERIEL-ITEM-FACILITY-HOLDING is reported.	DATA TYPE: datetime year to second datetime year to second
ATTRIBUTE NAME: PERCEPTION end datetime	ATTRIBUTE NAME: PERCEP_END_DTTM	DEFINITION: The determined or observed end time for an event which has a PERCEPTION.	DATA TYPE: datetime year to second
ATTRIBUTE NAME: ENEMY-ORG-POINT-OVERLAY application datetime	ATTRIBUTE NAME: EORG_PT_APPL_DT	DEFINITION: The datetime that a specific ENEMY-ORG-POINT location has been applied to a specific OVERLAY.	DATA TYPE: datetime year to second

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1. Element Name: DESTINATION_SYMBOL_CODE	2. Attribute Name: DESTINATION SYMBOL CODE	3. Definition: A symbol code for the estimated destination of the observation or track. A standard scheme for symbol coding enabling the transfer, display and use of symbols and graphics among information systems, as per MIL-STD 2525A, and supported by the element AFFILIATION.	4. Data Type: varchar(15), NULL
PHYSICAL NAME: gsd_id	DEFINITION: GSD code from Mil Std 2525B.	DATA TYPE: varchar(15)	NULL OPTION
PHYSICAL NAME: SYMBOL_CD	DEFINITION: The code that denotes the class of a FEATURE-SYMBOL.	DATA TYPE: varchar(15)	NULL OPTION
ELEMENT NAME: ENEMY-MATERIEL symbol code	ATTRIBUTE NAME: EQUIP_SYMBOL_CD	DEFINITION: The code that denotes the symbol that represents an ENEMY-MATERIEL	DATA TYPE: varchar(15) NOPTIONS:NULL
ELEMENT NAME: FEATURE-SYMBOL code	ATTRIBUTE NAME: SYMBOL_CD	DEFINITION: The code that denotes the class of a FEATURE-SYMBOL.	DATA TYPE: varchar(15) NOPTIONS:NULL

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1. Element Name: ECHELON	2. Attribute Name: ECHELON	3. Definition: Organizational level of the unit.	4. Data Type: char(4)
-HEADER- JCDB ATTRIBUTE NAME: ECHELON_CD	PHYSICAL NAME: ECHELON_CD	DEFINITION: The code that denotes a class to which a unit belongs that is defined as the lowest structural level or point at which organizational control or authority of an ORGANIZATION-TYPE is concentrated	DATA TYPE: smallint
PHYSICAL NAME: ECHELON_CD	DEFINITION: The code that denotes an organizational class to which a FEATURE belongs that is defined as the lowest structural level or point at which organizational control or authority is concentrated and provides some specification to the size of the FEATURE.	DATA TYPE: smallint	NULL OPTION
1. Element Name: ECM_TECHNIQUE	2. Attribute Name: ECM TECHNIQUE	3. Definition: The method or technique employed by electronic warfare equipment to degrade or damage an enemies radar. Also, the electronic countermeasures (ECM) technique employed against communication and non-communications electronics.	4. Data Type: char(9), NULL
PHYSICAL NAME: EADD_TYP_CD	DEFINITION: The code that denotes the method used to deliver the ()-FEATURE agent.	DATA TYPE: smallint	NULL OPTION

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1. Element Name: ELEVATION_ACC	2. Attribute Name: ELEVATION ACC	3. Definition: Linear Error (at ELEVATION_CONF_LVL assurance) of the value in the ELEVATION field.	4. Data Type: float, NULL
PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)	NULL OPTION
PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION

1. Element Name: ELEVATION_CONF_LVL	2. Attribute Name: ELEVATION CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, ELEVATION linear accuracy, has been vertically positioned to within a specified vertical accuracy.	4. Data Type: tinyint, NULL
PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the precision for specifying the elevation of an object along a normal to horizontal plane. This code measures the accuracy of its FACILITY-POINT location in the "2" dimension.	DATA TYPE: integer	NULL OPTION
PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION

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PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)	NULL OPTION

1. Element Name: ELEVATION_DATUM	2. Attribute Name: ELEVATION DATUM	3. Definition: The vertical datum of the ellipsoid to which the ELEVATION value is referenced.	4. Data Type: char(3), NULL
PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION

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PHYSICAL NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
1. Element Name: ELEVATION_DATUM	2. Attribute Name: ELEVATION DATUM	3. Definition: The vertical datum of the ellipsoid to which the ELEVATION value is referenced.	4. Data Type: char(3), NULL
PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
1. Element Name: ELEVATION	2. Attribute Name: ELEVATION	3. Definition: Ground elevation of the geographic coordinates (above or below) a referenced ellipsoid vertical datum, usually WGS_84. This field is supported by: ELEVATION_ACC + ELEVATION_CONF_LVL + ELEVATION_DATUM + ELEVATION_DERIV + ELEVATION_DERIV_ACC + ELEVATION_DERIV_ACC_UM + ELEVATION_UM.	4. Data Type: float, NULL
PHYSICAL NAME: TGRT_LOC_ELVAT_m	DEFINITION: The elevation of the lowest point of a specified SUPPORTED-TARGET referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
PHYSICAL NAME: F_LOC_MIN_ELVAT	DEFINITION: The elevation of the lowest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
PHYSICAL NAME: F_LOC_MAX_ELVAT	DEFINITION: The elevation of the highest point of a specified FEATURE (whose FEATURE-LOCATION-cat-code is GEOMETRIC-VOLUME) referenced to the Vertical Datum of the World Geodetic System 1984 (WGS 84). Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
PHYSICAL NAME: WPN_MIN_ELVAT_ANG	DEFINITION: The angle from the horizontal centerline of a vertically steerable WEAPON-TYPE to the most extreme downward position it can be physically rotated without moving its base of support.	DATA TYPE: decimal(6,5)	NULL OPTION

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PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from the level specified by the FRIENDLY-ORG-POINT elevation category code for a specific FRIENDLY-ORG-POINT.	DATA TYPE: integer	NULL OPTION
1. Element Name: ELEVATION_DERIV_ACC	2. Attribute Name: ELEVATION DERIV ACC	3. Definition: Indicates the plus or minus error assessed against the method used to derive the elevation, ELEVATION_DERIV. This derivation error is used along with the source error in order to correctly assess a precision targeting elevation.	4. Data Type: float, NULL
PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity denoting the precision for specifying the elevation of an item POINT along a normal to horizontal plane.	DATA TYPE: integer integer	NULL OPTION
1. Element Name: ELEVATION_MSL_ACC	2. Attribute Name: ELEVATION MSL ACC	3. Definition: Linear Error (at ELEVATION_MSL_CONF_LVL assurance) of the value in the ELEVATION_MSL field.	4. Data Type: float, NULL
PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The specific value denoting the precision for specifying the elevation of an ENEMY-POINT along a normal to horizontal plane.	DATA TYPE: integer	NULL OPTION

1. Element Name: ELEVATION_MSL_CONF_LVL	2. Attribute Name: ELEVATION MSL CONF LVL	3. Definition: Indicates the confidence level expressed as a percent, that a specific geometric spatial element, ELEVATION_MSL linear accuracy, has been vertically positioned to within a specified vertical accuracy.	4. Data Type: tinyint, NULL
-HEADER- JCDB ATTRIBUTE NAME: FACILITY grade dimension	PHYSICAL NAME: FAC_GRADE	DEFINITION: Indicates the amount or degree of deviation from the horizontal represented as a percent. Grade is determined by the formula: vertical distance (VD) divided by horizontal distance (HD) times 100. VD is the difference between the highest and lowest elevation within the entity. HD is the linear distance between the highest and lowest elevation. (0-100%)	DATA TYPE: decimal(3,0)
1. Element Name: ELEVATION_MSL_DERIV_ACC	2. Attribute Name: ELEVATION MSL DERIV ACC	3. Definition: Indicates the plus or minus error assessed against the method used to derive the elevation, ELEVATION_MSL_DERIV. This derivation error is used along with the source error in order to correctly assess a precision targeting elevation.	4. Data Type: float, NULL
PHYSICAL NAME: VRT_PRECSN_QTY	DEFINITION: The quantity of the circular error bound at the 90% confidence level for the given set of coordinates of a specific ()-POINT.	DATA TYPE: integer	NULL OPTION

1. Element Name: ELEVATION_MSL_UM	2. Attribute Name: ELEVATION MSL UM	3. Definition: Unit of measure for ELEVATION_MSL field value.	4. Data Type: char(9), NULL
PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from MSL (Mean Sea Level) specified by the FEATURE-LOCATION-POINT elevation category code for a specific FEATURE-LOCATION-POINT. Unit of Measure = Meters	DATA TYPE: integer integer	NULL OPTION
PHYSICAL NAME: LNDFEAT_CANOPY_HT	DEFINITION: The tree canopy height dimension of a specific LAND-GEO-FEATURE. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION

1. Element Name: ELEVATION_UM	2. Attribute Name: ELEVATION UM	3. Definition: Unit of measure for ELEVATION field value.	4. Data Type: char(9), NULL
PHYSICAL NAME: ELEVATION_m	DEFINITION: The elevation from the level specified by the FRIENDLY-ORG-POINT elevation category code for a specific FRIENDLY-ORG-POINT. Unit of Measure = Meters	DATA TYPE: integer	NULL OPTION
1. Element Name: ELNOT	2. Attribute Name: ELNOT	3. Definition: The primary five character Electronic Intelligence ELINT notation established by NSA for non-communications electronic emissions. Used to preserve original signal identification in case of modification by subsequent processing.	4. Data Type: char(5)
PHYSICAL NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13)	NULL OPTION

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1. Element Name: EMITTER_MODE	2. Attribute Name: EMITTER MODE	3. Definition: A one-up-number used to group operating parameters of a radar. Uniquely identifies one of the modes that belong to an equipment or track.	4. Data Type: int
PHYSICAL NAME: PERCEP_REF_INDX	DEFINITION: The number which denotes a specific PERCEPTION. A serial index.	DATA TYPE: integer	NULL OPTION
PHYSICAL NAME: PERCEP_INPUT_ID	DEFINITION: The MAC address of the record creator. The unique input identifier that represents a specific PERCEPTION.	DATA TYPE: integer	NULL OPTION
ELEMENT NAME: SENSOR-TYPE scanning type	ATTRIBUTE NAME: SNSR_SCAN_CD	DEFINITION: The code that denotes the type of scanning employed by a SENSOR-TYPE.	DATA TYPE: smallint NOPTIONS:NULL
ELEMENT NAME: EQUIPMENT-TYPE id	ATTRIBUTE NAME: MAT_ITM_ID	DEFINITION: The identifier that represents a specific MATERIEL-ITEM.	DATA TYPE: integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL
1. Element Name: EQP_CODE_REF	2. Attribute Name: EQP CODE REF	3. Definition: Reported equipment code for an item of equipment. Valid equipment codes are determined by DIA and are maintained by DIA.	4. Data Type: char(7), NULL
ELEMENT NAME: CTIL_IND_CD	ATTRIBUTE NAME: CTIL_IND_CD	DEFINITION: The code that denotes a specific MATERIEL-ITEM as being on the Commanders Tracked Item List (CTIL) for a specific ORGANIZATION.	DATA TYPE: smallint smallint NOPTIONS:NULL NULL

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1. Element Name: EXTERNAL_ID	2. Attribute Name: EXTERNAL ID	3. Definition: The current unique identifier assigned to the observation or track by the system forwarding the data.	4. Data Type: Verify the following:
PHYSICAL NAME: batlfld_obj_id	DEFINITION: Unique Identifier for a Battlefield Object	DATA TYPE: integer integer integer integer	NULL OPTION
PHYSICAL NAME: MIDB_O_SUFFIX	DEFINITION: The identifier which denotes the BASIC ENCYCLOPEDIA (BE) number for a specific SUPPORTED-TARGET that carries the "O" suffix. Uniquely identifies a facility or demographic area in conjunction with a BE_NUMBER. Permissible Values: [A-Z][A-Z] Pos. 1-2. SYSTEM ASSIGNED RECORD_ORIGINATOR. The organization creating the facility or demographic area. DIA installation records created prior to IDB generation of OSUFFIX contain DD. [0-9][0-9][0-9] Pos. 3-5 A one-up number.	DATA TYPE: varchar(5)	NULL OPTION

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Element Name	Attribute Name	Definition	Data Type
ELEMENT NAME: ORGANIZATION identifier	ATTRIBUTE NAME: ORG_ID	DEFINITION: The specific identifier for a ORGANIZATION.	DATA TYPE: integer in NOPTIONS:NOT NULL NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT
1. Element Name: EXTERNAL_ID_PREV	2. Attribute Name: EXTERNAL ID PREV	3. Definition: The previous unique identifier assigned to the observation or track by the system forwarding the data.	4. Data Type: varchar(30), NULL
ELEMENT NAME: PLAN version identifier	ATTRIBUTE NAME: PLAN_VERSION_ID	DEFINITION: The unique user generated identifier that denotes the initial (i.e. Version 1) and the subsequent variations of the original PLAN which is used together with the PLAN identifier so as not to divorce the VERSION from the PLAN.	DATA TYPE: varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) varchar(10) NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NULL NOT NULL NOT NULL NOT NULL

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1. Element Name: EXTERNAL_TGT_SYS_ID	2. Attribute Name: EXTERNAL TGT SYS ID	3. Definition: A unique identifier for a target system used to cross reference between different tracking systems.	4. Data Type: varchar(15), NULL
ELEMENT NAME: ENG_TGT_NUM	ATTRIBUTE NAME: MSN_TGT_ID	DEFINITION: This attribute defines the number that will identify, correlate, and associate data concerning a specific target across units and roles. The number consists of an alphanumeric string of six characters. The first two positions are letters while the last four are digits. Target numbers are sequenced.	DATA TYPE: varchar(6) NOPTIONS:NOT NULL
ELEMENT NAME: SUPPORTED-TARGET fire support BE number	ATTRIBUTE NAME: TRGT_BE_NUMBER	DEFINITION: This attribute defines the target identification that is normally used by intelligence electronic warfare assets to track target information. By correlating this number with a fire engagement system target number the fire engagement systems and IEW assets are able to communicate information on a target. The first 2 characters are numeric; The next 5 characters are Alpha; The next character is an alpha or special characters; The next character is alpha and the last 4 are numeric. A string of 13 characters.	DATA TYPE: varchar(13) NOPTIONS:NULL

1. Element Name: FORCE	2. Attribute Name: FORCE	3. Definition: An aggregation of military units within a single service (i.e., ARMY, AIR FORCE, etc.) which operates under a single authority to accomplish a common mission.	4. Data Type: char(4)
ELEMENT NAME: EXECUTION-COMPONENT text	ATTRIBUTE NAME: EXECUTION_TXT	DEFINITION: The brief text description of the planned execution of a specific operation by forces.	DATA TYPE: varchar(254) NOPTIONS:NOT NULL
ELEMENT NAME: SERVICE-SUPPORT-COMPONENT text	ATTRIBUTE NAME: SERVICE_SPT_TXT	DEFINITION: The brief text description of the service SUPPORT to be provided for friendly forces for a given planned operation	DATA TYPE: varchar(254) NOPTIONS:NOT NULL
ELEMENT NAME: Type code	ATTRIBUTE NAME: TYPE_CD	DEFINITION: Attribute to identify the Battlefield object group for example, as Unit, Battlefield Geometries	DATA TYPE: smallint NOPTIONS:NULL
ELEMENT NAME: SITUATION-COMPONENT text	ATTRIBUTE NAME: SITUATION_TXT	DEFINITION: The brief text description of the anticipated situational scenario to be encountered by friendly forces for a given planned operation	DATA TYPE: varchar(254) NOPTIONS:NULL

1. Element Name: GRAPHIC_SERIES	2. Attribute Name: GRAPHIC SERIES	3. Definition: A designator indicating the type of graphic used.	4. Data Type: char(5)
ELEMENT NAME: Picture Identifier	ATTRIBUTE NAME: picture_indx	DEFINITION: Unique Identifier assigned to a picture.	DATA TYPE: serial Integer NOPTIONS:NOT NULL NOT NULL
ELEMENT NAME: OVERLAY NAME: ATTRIBUTE NAME: OLAY_NAME: DEFINITION: The user applied text which provides the plan and user identifies for an OVERLAY.	DATA TYPE: varchar(54) NOPTIONS:NOT NULL	TABLES: OVERLAY	-END-
ELEMENT NAME: OVERLAY Owner identifier	ATTRIBUTE NAME: OWNER	DEFINITION: The unique identifier for the owner of the OVERLAY.	DATA TYPE: varchar(64) NOPTIONS:NULL
1. Element Name: GRAPHIC_AGENCY	2. Attribute Name: GRAPHIC AGENCY	3. Definition: Indicates the Agency which produced the graphic.	4. Data Type: varchar(15)
PHYSICAL NAME: AIR_TRFC_CNTRL_CD	DEFINITION: The code that denotes the agency providing air traffic services for an AIR-ROUTE-SEGMENT.	DATA TYPE: smallint	NULL OPTION
PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial	NULL OPTION

1. Element Name: GRAPHIC_CC	2. Attribute Name: GRAPHIC CC	3. Definition: Indicates the code of country which produced the graphic.	4. Data Type: char(2)
-HEADER- JCDB ATTRIBUTE NAME: COUNTRY code	PHYSICAL NAME: CODE COUNTRY_CD	DEFINITION: The code that represents a COUNTRY.(C2 Core 14392) (A) (The coded look-up can return the varchar 2 value and/or the country name)	DATA TYPE: varchar(2) varchar(2)
ELEMENT NAME: subject OVERLAY	ATTRIBUTE NAME: OVERLAY_INDX	DEFINITION: The unique identifier for an overlay	DATA TYPE: integer NOPTIONS:NOT NULL
ELEMENT NAME: OVERLAY-ASSOCIATION relationship type code	ATTRIBUTE NAME: OLAY_ASSC_REL	DEFINITION: The code which denotes the way in which a subject OVERLAY is associated with a object OVERLAY.	DATA TYPE: smallint NOPTIONS:NOT NULL

1. Element Name: GRAPHIC_ED_DATE	2. Attribute Name: GRAPHIC ED DATE	3. Definition: The edition date of the map graphic.	4. Data Type: varchar(8)
PHYSICAL NAME: MAP_EDITION_ID	DEFINITION: The unique identifier which indicates the edition of a particular MAP document.	DATA TYPE: varchar(15)	NULL OPTION

PHYSICAL NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial	NULL OPTION
PHYSICAL NAME: effct_dttm	DEFINITION: Date and time of last update. Datetime that a specific definition was last modified.	DATA TYPE: datetime year to second datetime year to second	NULL OPTION
1. Element Name: GRAPHIC_SHEET	2. Attribute Name: GRAPHIC SHEET	3. Definition: The sheet number of the graphic for which this designation is appropriate, or the organization producing the chart may be entered in these positions. Sheet numbers for the JOG series are entered as follows: NI 15-04.	4. Data Type: varchar(15)

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PHYSICAL NAME: PERCEP_REF_INDX	DEFINITION: The number which denotes a specific PERCEPTION. A serial index.	DATA TYPE: integer	NULL OPTION
ELEMENT NAME: PLAN-OVERLAY identifier	ATTRIBUTE NAME: PLANOLAY_INDX	DEFINITION: The unique identifier for an OVERLAY which provides PLAN graphics.	DATA TYPE: serial NOPTIONS:NOT NULL
ELEMENT NAME: DOCUMENT identifier	ATTRIBUTE NAME: DOC_INDX	DEFINITION: The unique identifier for a specific DOCUMENT	DATA TYPE: serial integer integer integer integer integer integer NOPTIONS:NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NOT NULL NULL NOT NULL
ELEMENT NAME: MAP series identifier	ATTRIBUTE NAME: MAP_SERIES_ID	DEFINITION: The sequential identifier that represents a collection of plane surface representations of the earth's surface.	DATA TYPE: varchar(15) NOPTIONS:NOT NULL
1. Element Name: ILAT	2. Attribute Name: Not displayed.	3. Definition: The geocentric latitude of the collector. The range of values for this field is from -324,000,000 to 324,000,000, representing (90 degrees south to 90 degrees north).	4. Data Type: int, NULL
PHYSICAL NAME: EN_MAT_PT_LAT	DEFINITION: The latitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION

PHYSICAL NAME: CURRENT_LATITUDE	DEFINITION: The latitude of a specific ENEMY-ORG-POINT according to WGS 84.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION
PHYSICAL NAME: TGRT_PT_LAT	DEFINITION: The latitude of a specific SUPPORTED-D-TARGET-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(8,6)	NULL OPTION
PHYSICAL NAME: lat	DEFINITION: The latitude of a specific site or location as specified in the Gazetteer.	DATA TYPE: numeric(8,6) numeric(8,6)	NULL OPTION
PHYSICAL NAME: LAT	DEFINITION: The latitude of a specific ACTION-LOCATION according to WGS 84.	DATA TYPE: numeric(8,6)	NULL OPTION
1. Element Name: ILON	2. Attribute Name: Not displayed.	3. Definition: The geocentric longitude of the collector. The range of values for this field is from -648,000,000 to 648,000,000 representing (180 degrees west to 180 degrees east).	4. Data Type: int, NULL
ELEMENT NAME: SUPPORTED-TARGET-LOCATION-POINT longitude coordinate	ATTRIBUTE NAME: TGRT_PT_LON	DEFINITION: The longitude of a specific SUPPORTED-TARGET-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NOT NULL
ELEMENT NAME: ENEMY-MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: EN_MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NULL NULL
ELEMENT NAME: ENEMY-ORGANIZATION-POINT longitude coordinate	ATTRIBUTE NAME: CURRENT_LONGITUDE	DEFINITION: The longitude of a specific ENEMY-ORG-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NULL NULL

ELEMENT NAME: ENEMY-PERSON-POINT longitude	ATTRIBUTE NAME: LON	DEFINITION: The longitude of a specific ENEMY-PERSON-POINT	DATA TYPE: numeric(9,6) NOPTIONS:NULL
ELEMENT NAME: FACILITY-POINT longitude coordinate	ATTRIBUTE NAME: FAC_PT_LON	DEFINITION: The longitude for a specific FACILITY-POINT according to the WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NULL
ELEMENT NAME: FEATURE-LOCATION-POINT longitude coordinate	ATTRIBUTE NAME: FEATPT_LON	DEFINITION: The longitude of a specific FEATURE-LOCATION-POINT according to WGS 84.	DATA TYPE: numeric(9,6) numeric(9,6) NOPTIONS:NOT NULL NOT NULL
ELEMENT NAME: MATERIEL-POINT longitude coordinate	ATTRIBUTE NAME: MAT_PT_LON	DEFINITION: The longitude of a specific MATERIEL-POINT according to WGS 84.	DATA TYPE: numeric(9,6) NOPTIONS:NOT NULL
1. Element Name: LAND_TYPE	2. Attribute Name: LAND TYPE	3. Definition: Indicates the type of land-based network structure being represented in the data.	4. Data Type: char(4), NOT NULL
PHYSICAL NAME: TOPOLOGY_TYP_CD	DEFINITION: The code that denotes the physical structure of the NETWORK.	DATA TYPE: smallint	NULL OPTION
1. Element Name: LOC_REASON	2. Attribute Name: LOC REASON	3. Definition: Indicates the reason that the entity is at that location.	4. Data Type: char(9), NOT NULL
PHYSICAL NAME: OMA_REASON_TXT	DEFINITION: The text that describes the purpose for an ORGANIZATION to support a specific MISSION-AREA.	DATA TYPE: varchar(254)	NULL OPTION
LOC_NAME	Location name for the coordinates	VARCHAR(54)	
loc_NAME:	The name of a site or location as specified in the Gazetteer	VARCHAR(64)	gazetteer
FEATPT_LON	The longitude of a specific FEATURE-LOCATION-POINT according to WGS 84	2 NUMERIC(9,6)	FEATURE-LOCATION-POINT FEATURE-LOCATION-POINT-HISTORY
1. Element Name: MIL_AREA	2. Attribute Name: MIL AREA	3. Definition: Military district, region, or zone in which the geographic coordinates reside.	4. Data Type: char(5), NULL

PHYSICAL NAME: PLAN_GEOLOC_TXT	DEFINITION: The brief textual description of an identifiable geographic region to which a specific PLAN applies.	DATA TYPE: varchar(60)	NULL OPTION
ELEMENT NAME: FACILITY DODAAC identifier	ATTRIBUTE NAME: FAC_DODAAC	DEFINITION: The Department of Defense Activity Address Code for a specific FACILITY. The DODAAC field supports the "customer identity" of a Supply Point for interfaces to the Commercial systems for re-supply.	DATA TYPE: varchar(6) NOPTIONS:NULL
1. Element Name: MIL_GRID	2. Attribute Name: MIL GRID	3. Definition: Military Grid Reference System coordinates.	4. Data Type: varchar(15), NULL
PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION
PHYSICAL NAME: gsd_id	DEFINITION: GSD code from Mil Std 2525B.	DATA TYPE: varchar(15)	NULL OPTION
1. Element Name: MIL_GRID_SYS	2. Attribute Name: MIL GRID SYS	3. Definition: Indicates the grid system used in the development of the MIL_GRID coordinates.	4. Data Type: char(3), NULL
PHYSICAL NAME: GRID_SYS_USE_CD	DEFINITION: The code that denotes the grid system used on a specific MAP document.	DATA TYPE: smallint	NULL OPTION
PHYSICAL NAME: SYS_DEFAULT sys_default SYS_DEFAULT	DEFINITION: The code that denotes if the filter is a system default or user defined. Attribute identifying a filter as a system default or user defined.	DATA TYPE: smallint smallint smallint	NULL OPTION

PHYSICAL NAME: CTRGT_ATTITUD_mils	DEFINITION: The angle specifying the directional alignment of the major (length) axis of a rectangular CANDIDATE-TARGET. Measured clockwise from the line of true north. Unit of Measure = mils	DATA TYPE: smallint	NULL OPTION
1. Element Name: MSN_SECONDARY	2. Attribute Name: MSN SECONDARY	3. Definition: Indicates the secondary type of mission that an entity is organized and equipped to perform.	4. Data Type: char(4), NULL
ELEMENT NAME: MSN_SPECIALTY	ATTRIBUTE NAME: MSN_SPECIALTY	DEFINITION: The specific type(s) of mission that an ORGANIZATION-TYPE performs.	DATA TYPE: varchar(4) varchar(4) NOPTIONS:NOT NULL NOT NULL
ELEMENT NAME: OB_TYPE	ATTRIBUTE NAME: OB_TYPE	DEFINITION: The code that denotes the service or service affiliation type to which an ORG-TYPE belongs or is operationally responsible as it pertains to the manner of the battle mission it performs.	DATA TYPE: varchar(1) NOPTIONS:NULL

1. Element Name: MSN_SECONDARY_SPECIALTY	2. Attribute Name: MSN SECONDARY SPECIALTY	3. Definition: Indicates the secondary specialty type of mission that an entity is organized and equipped to perform.	4. Data Type: char(4), NULL
ELEMENT NAME: MSN_SPECIALTY	ATTRIBUTE NAME: MSN_SPECIALTY	DEFINITION: The specific type(s) of mission that an ORGANIZATION-TYPE performs.	DATA TYPE: varchar(4) varchar(4) NOPTIONS:NOT NULL NOT NULL

1. Element Name: MSN_PRIMARY_SPECIALTY	2. Attribute Name: MSN PRIMARY SPECIALTY	3. Definition: Indicates the principal specialty type of mission that an entity is organized and equipped to perform.	4. Data Type: char(4), NULL
PHYSICAL NAME: MSN_SPECIALTY	DEFINITION: The specific type(s) of mission that an ORGANIZATION-TYPE performs.	DATA TYPE: varchar(4) varchar(4)	NULL OPTION
PHYSICAL NAME: NETNODE_PRIM_MSN	DEFINITION: The text that describes the principal mission of a NETWORK-NODE.	DATA TYPE: varchar(254)	NULL OPTION
1. Element Name: NET_LINK_TYPE_SPECIFIC	2. Attribute Name: NET LINK TYPE SPECIFIC	3. Definition: Indicates a further specification of the network type.	4. Data Type: char(3), NULL

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PHYSICAL NAME: NTWK_CIRCON_REQ_CD	DEFINITION: The code that indicates a circuit conditioning is required for a specific NETWORK-CIRCUIT.	DATA TYPE: smallint	NULL OPTION
1. Element Name: PGRI_MEAN	2. Attribute Name: PGRI MEAN	3. Definition: The (weighted or unweighted) average pulse group repetition interval (PGRI) value for all reports in the track.	4. Data Type: float, NULL
PHYSICAL NAME: FQY_UPP_LIM_RT	DEFINITION: The rate of the largest number of complete oscillations of an electromagnetic wave per unit time that a SENSOR-TYPE can receive for processing.	DATA TYPE: smallint	NULL OPTION
ELEMENT NAME: SENSOR-TYPE scan rate	ATTRIBUTE NAME: SCAN_RATE_hz	DEFINITION: The rate, in hertz, of the rotational speed of a SENSOR-TYPE. (Primarily Radar)	DATA TYPE: integer NOPTIONS:NULL
1. Element Name: OPER_STATUS	2. Attribute Name: OPER STATUS	3. Definition: Degree to which an entity is ready to perform the overall operational mission(s) for which it was organized and equipped.	4. Data Type: Verify the following:
ELEMENT NAME: OPER_STATUS	ATTRIBUTE NAME: OPER_STATUS	DEFINITION: The code that denotes the over state of an object.	DATA TYPE: varchar(3) varchar(3) varchar(3) NOPTIONS:NULL NULL NULL
ELEMENT NAME: ENEMY-ORGANIZATION operational status code	ATTRIBUTE NAME: OPER_STATUS	DEFINITION: The code that denotes the over state of an object.	DATA TYPE: varchar(3) NOPTIONS:NULL
PHYSICAL NAME: ORG_CBAT_REDINESS	DEFINITION: The code that denotes a commanders assessment of an organization's readiness to perform combat missions.	DATA TYPE: smallint	NULL OPTION

1. Element Name: SPEED_UM	2. Attribute Name: SPEED UM	3. Definition: Unit of measure for SPEED field value.	4. Data Type: char(9), NULL
ELEMENT NAME: ENEMY-MATERIEL-POINT speed rate	ATTRIBUTE NAME: SPEED_kmh	DEFINITION	The value that represents the motion of a specific object at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kmh
ELEMENT NAME: FRIENDLY-ORGANIZATION-POINT speed rate	ATTRIBUTE NAME: FORG_SPEED_kmh	DEFINITION: The value that represents the motion of a specific ORGANIZATION at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kmh The value that represents the motion of a specific ORGANIZATION at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kph	DATA TYPE: smallint　　　　smallint NOPTIONS:NULL　　　　NULL
ELEMENT NAME: MATERIEL-POINT speed rate	ATTRIBUTE NAME: SPEED_kmh	DEFINITION: The value that represents the motion of a specific object at a specific POINT in terms of distance per unit time. (Derived from Webster.) Unit of Measure = kmh	DATA TYPE: smallint NOPTIONS:NULL
1. Element Name: WAC	2. Attribute Name: WAC	3. Definition: World Area Code (WAC) for which a designated place is located.	4. Data Type: char(4), NULL

| ELEMENT NAME: SUPPORTED-TARGET MIDB_BE_NUMBER | ATTRIBUTE NAME: MIDB_BE_NUMBER | DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific SUPPORTED-TARGET. Uniquely identifies the installation of the facility. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC).   [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position on | DATA TYPE: varchar(10) NOPTIONS:NULL |
| ELEMENT NAME: FACILITY BE identifier | ATTRIBUTE NAME: BE_NUMBER | DEFINITION: The assigned BASIC ENCYCLOPEDIA (BE) number for a specific FACILITY. Uniquely identifies the installation of the FACILITY. The BE_NUMBER is generated based on the value input for the COORD to determine the appropriate World Area Code (WAC), the system assigned record originator and a one-up-number. 5. Permissible Values: UL_BE_NUMBER [0001-2144] Pos. 1-4, World Area Code (WAC). [-,E,A-Z] Pos. 5, A hyphen, '-', or an 'E', in the fifth position indicates that position-6 will contain values 0-9. Alternately, the fifth position may contain the first of a two-character system assigned record originator code, position-6 will then contain the second character of the system assigned record originator code. [0-9,A-Z] Pos. 6, May contain the second character of the system assigned record originator code, the one-up-number series will then begin in position seven, and range from 001-999. If the one-up-number series begins in position 6, this position will contain the first of a four-position one-up-num | DATA TYPE: varchar(10) NOPTIONS:NULL |

1. Element Name: WATERBODY	2. Attribute Name: WATERBODY	3. Definition: Body(s) of water in which the geographic coordinates reside.	4. Data Type: char(2), NULL
ELEMENT NAME: WATER-ROUTE amplifying text	ATTRIBUTE NAME: WET_RTE_AMP_TXT	DEFINITION: The alphanumeric field which lends detail about a specific WATER-ROUTE.	DATA TYPE: varchar(254) NOPTIONS:NULL

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